CHIROPRACTIC SYMPTOMATOLOGY

FIRTH

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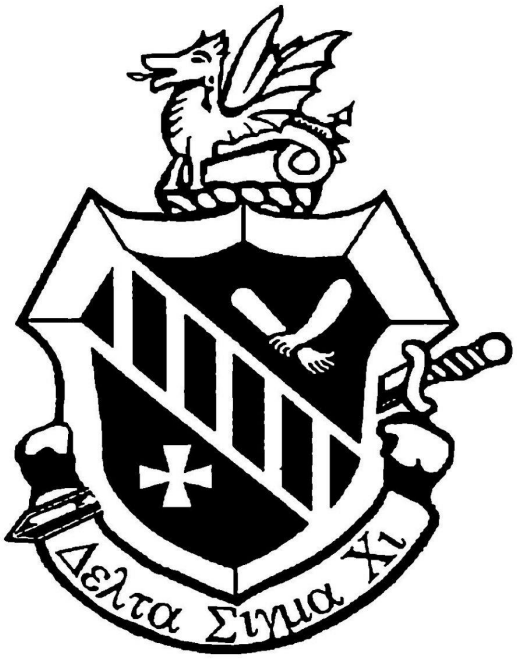

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A TEXT-BOOK

ON

Chiropractic Symptomatology

OR THE

Manifestations of Incoordination Considered From a Chiropractic Standpoint

By

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(Chiropractic's Fountain Head)
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LIST OF ABBREVIATIONS USED

Upper Cervical—First Four Cervical.
At.—Atlas.
Ax.—Axis.
C.—Cervical.
M. C. P.—Middle Cervical Place.—3, 4 & 5.
L. C. P.—Lower Cervical Place.—6-7.
A. P.—Arm Place.—1D.
H. P.—Heart Place.—2.
Lu. P.—Lung Place.—3.
Li. P.—Liver Place.—4.
C. P.—Center Place.—5.
S. P.—Stomach Place.—6-7-8.
L. S. P.——Lower Stomach Place.—8.
Spl. P.—Spleen Place.—9.
K. P.—Kidney Place.—10-11-12.
U. P. P.—1-2L.
P. P.—3L.
L. P. P.—4 & 5.

SECTION XII.

DISEASES OF THE EYE

Hyperemia of the Conjunctiva

Definition.—An over-fullness of the conjunctival vessels without great thickening. It is also called dry catarrh.

Adjustment.—Upper cervical.

Symptoms.—This may be a symptom of chronic conjunctivitis, or may be primary in itself. When primary, the predominating symptoms are heavy, hot, painful lids, more pronounced when the ball is moved. There is an increased flow of lacrimal fluid and sensitiveness to light. Upon inspection the under surface of the lids are found to be highly congested and slightly swollen. There is no discharge other than that produced by lacrimation.

Simple Conjunctivitis

Definition.—An acute catarrhal inflammation of the conjunctiva, characterized by a slight swelling of the lids and a muco-purulent secretion.

Adjustment.—Upper cervical and K. P.

Pathology.—The occular and palpebral conjunctiva become hyperemic and swollen, giving off an exudate of transformed mucus, fibrin and granular debris.

Symptoms.—Catarrhal conjunctivitis may be unilateral or bilateral, and is often associated with coryza. It begins with burning sensations, lacrimation and slight swelling. The inflamed surface gives off a sticky transformed secretion, which often hardens during the night, thus holding the lids fast together. The lids become markedly thickened and their movements are very painful. The eye is sensitive to light, cold and wind. The

duration is from eight to ten days and the prognosis is always favorable.

Muco-Purulent Conjunctivitis

Definition.—An acute, "so-called highly contagious," muco-purulent inflammation of the conjunctiva, and is also commonly called **pink eye,** or **hemorrhagic conjunctivitis.**

Adjustment.—Upper cervical with K. P.

Pathology.—Begins with a marked degree of congestion of the conjunctival vessels, some swelling and abundant muco-purulent exudate. This is followed by a subconjunctival petechia.

Symptoms.—This form of conjunctivitis is always bilateral, although one eye may be affected before the other. Begins with burning pain in the lids and a thick glue-like secretion from the eye, which cements the lids together during sleep. By the third day the lids are greatly swollen and the occular conjunctiva is bright red, hence the name, pink eye. This marks the height of the condition. Close inspection will reveal that many small hemorrhages have taken place. The exudate always retains its stringy appearance as it contains much mucin. In about four per cent of the cases there is the formation of a pseudo membrane, which makes the condition resemble diphtheria. The total duration is about ten days, and the prognosis is very favorable.

If the exudate becomes purulent the pus destroys the mucin and its stringy character is then lost. The term purulent conjunctivitis is then applied to this condition, but purulent conjunctivitis may develop in other forms of the disease.

Gonorrheal Conjunctivitis

Definition.—A gonorrheal inflammation of the conjunctiva.

Adjustment.—Upper cervical and K. P.

Pathology.—The conjunctival vessels are engorged early and the superficial layers of the conjunctiva are infiltrated with serum and leucocytes. Later there is a purulent discharge from the free surface.

Symptoms.—This begins with swelling of the lids, which become a dark red hue. There is a gritty sensation with

smarting and burning. In three days the height of the acute stage is reached, the lids being enormously swollen. The upper lid often overlaps the lower, and the secretion which at first is thin and watery, becomes thick and purulent, and flows down over the cheeks. The occular conjunctiva becomes markedly edematous, producing chemosis, and the chemotic tissue often overlaps the cornea, giving lodgment to exudate in the sulcus thus formed. The accumulated exudate in its process of decomposition often involves the cornea, causing corneal ulcers. In one or two weeks the acute stage merges into the subacute. In the subacute stage the swelling and secretion are greatly diminished and the conjunctiva is pale and flabby. Use of the eyes still brings on pain with increased secretion. If the condition becomes purulent there are always corneal ulcers, which in the healing process, leave scars, greatly interfering with vision.

Gonorrheal conjunctivitis in the new-born develops within the first three days and is usually called conjunctivitis neonatorum or ophthalmia neonatorum.

Diphtheric Conjunctivitis

Definition.—A severe, acute inflammation of the conjunctiva, characterized by intense swelling, thickening and hardening of the lids, and by the presence of a pseudo membrane.

Adjustment.—Upper cervical and K. P.

Pathology.—Begins with a congestion of the vessels of the conjunctiva, which is soon followed by an exudate of leucocytes and fibrin upon its free surface. This exudate is firmly attached to the superficial cells, and incloses epithelial cells, blood corpuscles and various forms of bacteria.

Symptoms.—In typical cases the onset is sudden. It begins with discomfort, lacrimation and congestion, and within twenty-four hours the upper lid may have attained four or five times its normal thickness. It becomes shiny and assumes a dusky red color. The lid is hard to the touch, closes the eye completely, and cannot be easily raised or everted. A serous exudate tinged with blood often oozes from between the lids during this stage.

There is a sensation of great tension upon the globe, but aside from this there is little pain. Upon raising the lids the pseudo membrane will be found upon the palpebral and occular conjunctiva. It is gray in color, closely adherent and about one mm. in thickness. Forcible removal of the pseudo membrane will leave a raw, bleeding surface, which is soon covered with a new coat of exudate. The acute stage lasts about seven days, during which time there may be slight fever with its accompanying symptoms. In time the exudate becomes purulent and the membrane sloughs off in small plates until the conjunctiva is clear. Corneal ulcers are the most common complication.

The prognosis is favorable under adjustments.

Granular Conjunctivitis

Definition.—An inflammation of the conjunctiva, characterized by the formation of numerous, oval granulations upon the palpebral conjunctiva. When the conjunctiva is not hypertrophied these granulations resemble frog's spawn, to which they are frequently compared.

Adjustment.—Upper cervical in combination with K. P., but the vertebra taken in combination may be any that will tend to make elimination more normal.

Pathology.—Blood vessels become enlarged, the conjunctiva becomes swollen, and the lymphoid follicles develop into papilla-like projections. Small cysts may develop and scar tissue form as the result of their erosion.

Symptoms.—This disease is also called Trachoma, Granular Eyelids, Granular Ophthalmia, Military Ophthalmia and Egyptian Ophthalmia. Its symptoms are divided into three stages: The first stage may begin like catarrhal conjunctivitis, having more marked swelling, discharge and hypertrophy, or it may begin with slight thickening of the lids, and abundant development of minute granules which can be seen upon everting them. But most commonly it has a very gradual onset, with redness of the conjunctiva and margins of the lids, which is accompanied by lacrimation, scanty discharge and a burning sensation. The lids may be stuck together upon awakening. By

the end of the week the pain and irritation have greatly increased. By the end of the second week the conjunctiva has become markedly hypertrophied and studded with small granules. By the sixth week the hypertrophy lessens, and a marked congestion prevails, which becomes chronic, and gradually merges into the second stage, which is one of commencing atrophy with persistent granulation.

The **second stage** is commonly called the **granular stage.** In this stage hypertrophy of connective tissue has passed away, and bands of cicatrical tissue begin to appear. The follicles lose their character and coalesce. Masses of lymphoid tissue cover the under surface of the lids, especially the upper one. The area of the conjunctiva is lessened by contraction of the proliferating connective tissue. The margin of the lids may remain thick and the upper lid droops forming a partial ptosis. There is marked irritation of the cornea, produced by the rough granular lids moving over it. This gives rise to excessive vascularity of the superficial layer of the cornea, which is known as vascular pannus. It may be limited to a small part of the cornea, usually in a severe case involves the entire surface. If this condition is prolonged, superficial ulcers may form with the photophobia, spasms of orbicularis palpabara muscle and tilting of the head forward, and upon the development of this condition, there is but slight exudate and much lacrimation. This stage gradually merges into the third stage.

The **third stage** is spoken of as the stage of **atrophy.** All lymphoid tissue has disapeared. The conjunctiva, with the exception of a few localized spots, has lost its function. The cornea is partly or completely opaque, and vision is impaired or totally abolished. The lids, however, may remain thick, deformed, and have but few misplaced cillia.

The first stage lasts from three months to a year or more. The second stage rarely requires less than ten years to reach the stage of atrophy. In most all cases the patient has reached middle life before the appearance of this stage. The stage of atrophy is usually permanent. The results in the first and second stages under Chiropractic adjustments are good.

Pterygium

Definition.—A peculiar wedge shaped mass of hypertrophied conjunctiva, which develops in the horizontal meridian of the eyeball.

Adjustment.—Upper cervical.

Pathology.—It is composed of loose connective tissue, rich with blood vessels and fatty deposits. The epithelial layer of the conjunctiva is thickened. It is usually preceded by the formation of a small yellowish elevation in the occular conjunctiva, called a pinguecula. This is later embodied in the pterygium.

Symptoms.—It usually develops at the inner angle of the orbit with the apex extending toward the pupil and the base lying at the caruncle. Its upper and lower borders overlap the conjunctiva and are not attached to it. The apex advances toward the pupil, but does not pass its center. There is no pain unless the structure becomes inflamed, and is most commonly found in male adults, especially those employed as miners, stone masons, laborers and other occupations in which the eye would be subject to injury by small particles of hardened material. Most cases result from minor injuries of this character.

Xerosis

Definition.—A dryness of the surface of the conjunctiva, also called Xerophthalmos.

Adjustment.—Upper cervical and K. P.

Symptoms.—This may be a secretory neurosis of the lachrimal glands, or occur as a result of general malnutrition, but is often symptomatic and due to atrophy of the conjunctiva as in trachoma. It may occur as a mild or severe affection, and is characterized by triangular masses of foamy secretion, not moistened with tears, located at the margin of the cornea. The conjunctiva is lustreless, but may become red, due to the irritation of the dry lid moving over it. It is most common in adults, but may occur in children. The prognosis in mild cases is favorable, but when due to the third stage of trachoma is unfavorable.

Superficial Keratitis

Definition.—An inflammation of the conjunctival layer of the cornea, and is most commonly found in subjects of disordered nutrition. It is called phlyctenular conjunctivitis.

Adjustment.—Upper cervical with K. P.

Pathology.—This condition begins by the formation of a phlyctenule, an elevation resembling a vesicle. On cross section it is found to consist of a collection of small round lymphoid cells, which break down, are discharged and form a superficial ulcer, which is rapidly covered with a fresh layer of epethelium. In most cases there is no permanent defect, unless the ulcer affects the deep structures of the cornea.

Symptoms.—The disease begins by the formation of a small yellowish-white elevation one to three mm in diameter, which may occur at any place on the cornea, but usually near the margin of the sclerotic coat. There may be two or three of these phlyctenules. The conjunctival vessels, which extend from the carbuncle to the phlyctenule become greatly engorged, forming a triangular shaped area of redness, known as a vascular pannus. In mild cases there is but slight discomfort and inability to use the eyes as much as usual. In severe cases, photophobia, blepharospasm, supraorbital or temporal pain and lacrimation are all present. In the ordinary case, upon subsidence of the inflammation the cornea clears up, leaving no visual defect. In the more severe cases the cornea may remain opaque, but this opaqueness will gradually disappear in one to two years.

Suppurative Keratitis

Definition.—An inflammation of the cornea with the formation of pus.

Adjustment.—Upper cervical and K. P.

Symptoms.—The inflamed portion of the cornea becomes swollen and assumes a pearly gray color, which later becomes yellow and spreads more or less. When remaining circumscribed it forms an abscess of the cornea. This terminates by its anterior wall breaking down, discharging the pus, and leaving

a corneal ulcer. These ulcers may heal in a few days without leaving the cornea opaque. They can be detected upon inspection. The sides and bottom of the ulcer are covered with a detritis of dead corneal tissue and pus, having a yellowish color. The adjacent parts of the conjunctiva become red and congested, with a marked degree of swelling around the base of the ulcer. At times there is great pain, photophobia and lacrimation. If the ulcer should perforate the cornea the appearance of pus may be seen at the bottom of the anterior chamber, and is known as hypopyon. This perforation permits the aqueous humor to escape and the iris falls forward, often becoming adherent to the posterior wall of the cornea, producing what is known as anterior synechia. The anterior chamber may again fill up with the aqueous humor, leaving the iris adherent to the cornea in front of it. Should the pus and toxins of the keratitis be absorbed and spread throughout the eye, a condition of panophthalmitis is produced with final atrophy of the entire eyeball. In mild cases the prognosis is favorable under adjustments, but when severe complications with deformity develop, the outlook is not as good as regards recovery.

When the cornea is the seat of a gradual inflammation, without the destruction of tissue, but with opaqueness of the cornea, it is said to be interstitial or parenchyematous keratitis. Many such cases are believed to result from syphilis, and when associated with this disease often have Hutchison's teeth and other evidences that would lead one to suspect the disease.

Hordeoleum or Stye

Definition.—There are two forms, internal and external. An external stye is an acute inflammation of the hair follicles in the skin of the eyelid. An internal stye is an acute inflammation of the Meibomian glands.

Adjustment.—Upper cervical with K. P.

Symptoms.—A stye begins rather suddenly with edema, redness and an uncomfortable irritation, which becomes painful upon movement of the lid. A hard lump or point of induration is felt near the margin of the lid. At first this lump is red, but

within a few days changes to yellow, and the abscess points. In the external variety the pointing takes place through the skin, near the margin of the lid. In the internal variety the pointing takes place upon the surface of the palpebral conjunctiva. As soon as the abscess sac ruptures the pus is discharged and the symptoms rapidly abate. This condition is analogous to acne of the skin, and is most commonly found in young people who are poorly nourished or are the subjects of anemia or poor elimination. The prognosis is very favorable.

Blepharitis

Definition.—An inflammation of the eyelids, affecting principally their margins, and may be simple or ulcerated.

Adjustment.—Upper cervical with K. P.

Pathology.—In simple blepharitis there may be various degrees of severity, ranging from a slight redness with swelling to destruction of normal structures by the proliferated connective tissue. In ulcerated blepharitis there is hyperemia, swelling and deformity of the lids with the formation of thin crusts beneath which are shallow ulcers.

Symptoms.—In simple blepharitis or blepharitis squamosa the margin of the lid is bordered with a red fringe and fine bran like scales form around the roots of the cillia, which drop off when rubbed. There is also a marked tendency for the cillia to drop out, but they readily grow in again. When the scales are removed the underlying skin is red, but not moist or ulcerated. Upon awakening in the morning the lids may be fastened together by a wax like secretion from their borders. This is readily removed and these cases respond readily to the adjustments.

In ulcerative blepharitis there is great redness, some swelling, much moisture, shedding of the lashes and the formation of crusts. When the crusts are removed the ulcerations can be seen. Many yellowish white spots form, each of which is perforated with a hair. When the hair is pulled out a small round drop of pus will be found adherent to its root. Still deeper is found a small ulcerated base extending into the hair follicles.

The eye lashes are removed with very little traction. As the disease progresses each hair follicle is successively involved by this ulcerative process, until they are all destroyed. New lashes may grow to take the place of those having fallen, but they are few, small, misplaced and deformed. As a result of the cicatrical contraction, the lashes may become turned backward upon the eyeball, a condition called trichiasis. The lower lid may be everted, due to the contraction of the hypertrophied connective tissue. This permits the tears to flow over the lid. Such an eversion of the lower lid is called ectropion. When blepharitis reaches this stage there is little chance of restoring the lid to its normal condition.

Chalazion

Definition.—An enlargement of the Meibomian glands due to inflammatory obstruction of their ducts, also called Meibomian cyst, tarsal tumor, tarsal cyst and cystic tumor of the eyelid.

Adjustment.—Upper cervical with K. P.

Pathology.—Begins with the structural changes of inflammation in the Meibomian glands, which obstructs their ducts, preventing the excretion of the sebaceous material. The contents thus retained solidifies and undergoes fatty degeneration, containing giant cells, leucocytes and pus. They may be single or multiple, in one or both lids.

Symptoms.—A tarsal cyst may have a sudden or gradual onset. In the former developing rapidly with much inflammation and tenderness, which causes it to resemble a stye in its early stages, but it does not point. The cases of gradual onset develop so insidiously that the patient is unaware of the existence of an enlargement until the same is palpable. The overlying skin is white, and especially is this true when affecting the upper lid, as the tension of the lid upon the enlargement renders its capillaries anemic. Upon palpation it will move freely with the lid, but it is found to be firmly attached to the tarsus. The fact that it does not point and runs a chronic course distinguishes it from a stye. A chalazion is analogous to a wen on the scalp.

Blepharospasm

Definition.—A tonic or clonic contraction of some or all of the fibers of the orbicularis pelpebrarum muscle.

Adjustment.—Upper cervical.

Symptoms.—This is a motor neurosis and may affect one or both eyes, and one or both lids of each eye. There are many instances of slight cases characterized by a frequent contraction or twitching of a few fibres in one lid, which can be readily seen by an observer. In the more severe cases the contraction involves the entire muscle, causing the lids to close tightly and violently.

There are two forms of blepharospasm, clonic and tonic. In the former the spasm is of momentary duration, and consists of a series of forcible, uncontrollable blinkings. In the tonic variety there is a violent closure of the lids, which may persist for minutes, days, or even months. Blepharospasm may be symptomatic of chorea or hysteria, and will increase under excitement. Other cases may be primary, and may or may not be associated with refractive disturbances or other incoordinations of the eye. The adjustment would be in the upper cervical region as the diseases of which it is symptomatic, are caused by subluxation in this region.

Ptosis

Definition.—A drooping of the upper eyelid, due to paralysis of the levator palpabrarum superioris muscle, and is also known as blepharoptosis and blepharoplegia.

Adjustment.—Upper cervical.

Symptoms.—Ptosis may be congenital or acquired. When congenital it is usually due to a malformation of the lid, eyeball or orbit. The upper lid may be prevented from raising, due to a thickening or increased weight as might occur in blepharitis, granular conjunctivitis or tumors. It is usually due to paralysis of the levator muscle, which is supplied by the occulomotor nerve. It may be associated with strabismus, in which case they have a common cause. When associated with hemiplegia, and developing with it, is due to an intereranial hemorrhage, which causes pres-

sure upon the origin or path of the third cranial nerve. In bilateral ptosis, the peculiar pose of the head, which is thrown back to enable the patient to look under the drooping lids, is strikingly characteristic.

Congenital Anomalies of the Iris

Heterophthalmos is a congenital condition of the iris in which they differ in color. One iris may be blue and the other brown, or one iris may display two colors.

Persistent pupillary membrane is the remains of a membrane which occupied the pupillary field during fetal life. What is seen of this membrane consists of a number of fine pigmented threads, extending from one point of the pupillary margin of the iris to an opposite point of the margin. It is rarely found in both eyes, it frequently occurs in the new born, but disappears early in life by undergoing atrophy.

Coloboma of the iris is one of the most common malformations met with in the eye, and consists of an oval shaped fissure or gap in the iris, which has the effect of prolonging the pupil in the direction of the fissure, which is usually downward and inward. This condition may be unilateral or bilateral, and is due to incomplete closure of the occular fissure. The same condition may exist in the choroid, lens and retina. A congenital coloboma can be differentiated from an artificial one from the fact that in the latter there is the absence of a sphincter pupillae muscle, it having been excised along the margin of the coloboma.

Irideremia or Aniridia is a partial or complete absence of the iris. When the iris is completely absent the entire lens can be seen, it being so prominently exposed that even in case of cataract, there is still good vision. This is because there is space enough between the edge of the lens and the cilliary processes for light to pass. When the condition is incomplete, there is an absence of the iris at certain points, while small segments may be present at other points. When cataract is found, associated with aniridia it is usually congenital. Myopia, hyperopia, astigmatism, amblyopia and cloudy cornea are other conditions which are frequently associated. When there is a narrow rim

of iris extending from the scleral border, it is called a rudimentary iris, and is not irideremia.

Discoria is a condition in which the pupil is irregular or faulty in shape and is usually produced by excrescences on its margin.

Mydriasis is a motor disturbance of the sphincter pupillæ muscle, caused by an upper cervical subluxation, which is characterized by persistent dilatation of the pupil. Myosis is a motor disturbance, having a similar cause, and is characterized by persistent contraction of the pupil.

Hippus is also a motor disturbance, characteried by constant dilatation and contraction of the pupil or it is a clonic spasm of the sphincter pupillæ muscle.

Iritis

Definition.—An inflammation of the iris.

Adjustment.—Upper cervical with K. P.

Pathology.—The iris is thickened, due to an infiltration of serum and round cells, and discolored due to the hyperemia of the blood vessels. The exudate given off from the anterior surface is serous in character. When given off from the posterior sur face it is composed of fibrin and leucocytes. When synechia takes place the iris gradually becomes atrophied.

Symptoms.—The iris assumes a reddish color, which is produced by the hyperemia and by the aqueous humor, becoming infiltrated with the soluble coloring matter of the blood. The exudate may be thrown out from the posterior surface of the iris into the posterior chamber, causing adhesions between the capsule of the lens and the posterior surface of the iris, a condition known as posterior synechia. When this is the predominating condition it is called plastic iritis or iritis simplex. This begins with pericorneal congestion that may be slight or so severe that it produces chemosis. The pupil is contracted and does not respond to the usual tests. There may be exudate in the anterior or posterior chambers, making the cornea appear opaque. When the pupillary field is completely filled with exudate, it is known as

occlusion of the pupil. In some cases the entire pupillary margin of the iris may become adherent to the lens, and is known as seclusion of the pupil, a severe form of posterior synechia.

When the exudate is confined to the anterior surface of the iris it is called serous iritis. This exudate may drop into the anterior chamber, forming a whitish spot at its bottom, which is called hypopyon. The serous exudate contains some solid substances which become deposited upon the posterior surface of the cornea, making visible granular spots. The aqueous humor becomes cloudy and the patient may complain of misty vision. In this form there is no chemosis or noticeable congestion around the cornea. It is often of a temporary character, and like plastic iritis, has a favorable prognosis under adjustments.

When the iris becomes swollen and thrown into folds by a retention of the exudate in its substance, it is called parenchymatous iritis. The swelling, which is always present in this form, is often circumscribed and presents an appearance of small nodules within the iris. The conjunctiva may become red, swollen and sensitive. A part of the exudate may find its way into the anterior chamber, forming an hypopyon. It is important to remember that the hypopyon of iritis differs from that of keratitis in that it is much thinner, changes its position with every movement of the head, and undergoes such rapid absorption that it may disappear in a few hours. Pain is the most common subjective symptom, and may be localized in the eye, brow or temple. The severity of the pain does not always indicate the seriousness of the iritis, in which it is present. Usually plastic iritis has much more pain than parenchymatous, yet plastic iritis is a much less serious affection. There is considerable lacrimation, photophobia and visual disturbances, varying according to the opaqueness of the aqueous humor and to the amount of exudate in the pupillary field. The prognosis in parenchymatous iritis is not as favorable as in the two preceding forms.

Congenital Deformities of the Choroid

Coloboma of the choroid is an anomaly that is frequently

associated with the same condition of the iris. It is usually congenital, but is sometimes brought about by traumatism. Retinoscopic examination shows the exposed sclera through the aperture in the choroid. It most commonly forms near the optic nerve and may involve the retina as well as the choroid. When the retina is not involved its vessels can be seen crossing over the coloboma of the choroid.

Albinism is a partial or complete absence of pigment in the choroid, and is a congenital deformity. The pupil has a reddish luster and is smaller than normal. The iris appears red because the light is not absorbed owing to the lack of pigment, hence gives a reddish reflection. The vessels of the retina and choroid are plainly visible with the retinoscope. There is usually photophobia and often visional defects.

Choroiditis

Definition.—An inflammation of the choroid coat of the eyeball, which may be exudate or suppurative.

Adjustment.—Upper cervical with K. P.

Pathology.—In the exudative type the vessels are engorged with blood and the surrounding tissues are filled with round cells, and small open spaces containing fibrin may be seen. Hemorrhages may occur, and late in the disease there is proliferation of connective tissue with atrophy of the choroid.

In the suppurative type the choroid and retina are enormously thickened, being filled up with round cells, pigment and coagulated material, which in the suppurative stage causes them to lose their identity. The purulent exudate finds its way into the vitreous body and so mixes with it that the whole body is converted into homogenous mass. Upon absorption of the pus it comes in contact with practically all structures of the eyeball, so that in the late stages may produce a panophthalmitis.

Symptoms.—In the exudative or simple type retinoscopic examination will show yellowish-white spots scattered over the red fundus of the eyeball. Later this yellowish color disappears, leaving white spots, which indicates that the choroid has lost its pigment, exposing the sclera. When there are

many small spots of this character the condition is called disseminated choroiditis. The vitreous body may contain numerous dust-like spots and floating membranes which produce floating specks before the eyes or a scotoma in the field of vision. There are always visual disturbances consisting of photophobia, loss of acuteness, narrowing of the field of vision and floating specks before the eyes. The disturbances of vision result partly from the opacities in the vitreous body, and partly from the involvement of the retina, which is injured to some extent in most all cases. When the exudate is localized in the macular region it is called central choroiditis, and always has marked visual disturbances.

Suppurative choroiditis begins suddenly with redness and swelling of the lids, conjunctiva and cornea. The lids may be swollen closed, movements of the eyeball greatly lessened and the cornea cloudy. A yellowish reflection can be seen in the pupil, which is due to the presence of pus in the vitreous body. Hypopyon and anterior synechia may both be present. The intraoccular tension is increased, causing the pupil to be dilated and the anterior chamber may be shallow. There is intense throbbing pain in the orbit and brow. The sight is completely lost and the eyeball finally atrophies. The prognosis of this form is unfavorable, because drainage of the pus is difficult without coming in contact with the many very delicate structures of the eye.

Glaucoma

Definition.—An incoordination of the eye, characterized by opacity of the vitreous humor, increase in the intraoccular tension and cupping of the optic disc, producing total blindness.

Adjustment.—Upper cervical and K. P.

Pathology.—A variety of conditions may contribute to the production of structural changes observed in the eye, but whether they be inflammations, congestions or growths, the condition ultimately produced prevents normal drainage of fluid from the eyeball. This obstruction often affects Schlemm's canal in the angle of the anterior chamber, so that the exuded lymph cannot be properly drained, but is retained within the eyeball, raising the

intraoccular tension and causing opacities of the vitreous humor. The following conditions have been observed in eyes having glaucoma: Edema of the cornea; rigidity and fatty degeneration of the sclera; obstruction of the angle of filtration, Schlemm's canal and the spaces of Fontana; atrophy of the iris; atrophy of the cilliary body; fluidity and opacity of the vitreous humor; atrophy of the choroid; destruction of one or more layers of the retina, with its detachment, and excavation of the optic nerve.

Symptoms.—Glaucoma may be primary, secondary or congenital. Primary glaucoma may be acute inflammatory, subacute, chronic and simple or non-inflammatory.

Acute inflammatory glaucoma has a prodromal stage which is characterized by mild attacks in which the cornea is slightly steamy, the pupil dilated and sluggish and hazy vision with rainbows around lights. The eyeball may feel abnormally firm under palpation and the retinal arteries may be seen to pulsate under ophthalmoscopic examination. The prodromal stage may last months or years, coming on in attacks of a few days duration each, with intervals of abatement. During these intervals there are no symptoms displayed but the patient requires a stronger reading glass than before the attack.

The glaucomatous attack comes on suddenly with severe and excruciating pain in the eyeball and corresponding side of the head, which may be accompanied by vomiting, fever and even loss of consciousness, the lids become puffy and the occular conjunctiva reddened. The hazy vision is most marked near the center of the visual field and sometimes exists in spots. The cornea becomes insensitive and the pupil is dilated, having a greenish reflection from the lens, hence the word glaucoma, which means sea green. Dilatation of the pupil is not uniform, therefore it is never exactly circular in shape. The iris is discolored and the humors are turbid. The sight rapidly fails until the patient can scarcely recognize objects. Palpation of the eyeball will show a decided hardness. The intensity of the above symptoms begins to subside after a few days or weeks, but the pupil remains dilated and vision poor. The patient may remain in this condition without any change for some time and is said

to be in a glaucomatous state. After a period of quiet another outbreak occurs, or several successive attacks may occur, after which the sight is totaly destroyed, and known as absolute glaucoma. The eye assumes a dull, expressionless look, the cornea is surrounded by a zone of slaty hue, the lens and iris are crowded against the cornea, and the tension of the eyeball is excessive. At this stage excavation of the optic nerve reaches the maximum, and with the total loss of sight the pain usually subsides. In some cases of acute glaucoma, the patient becomes totally blind with the first and only attack, constituting what is known as glaucoma fulminans. After glaucoma becomes absolute, tissue changes are manifested in all structures of the eye. The lens becomes opaque and is known as glaucomatous cataract. The retina becomes detached, the iris and sclera atrophy, and in time the entire eyeball is greatly decreased in size.

The subacute form presents the same symptoms and mode of onset as the acute, but progresses more slowly and is less severe.

In chronic inflammatory glaucoma the appearance of the eye is very characteristic. The dull red color of the sclera, with its swollen veins, the smoky look of the cornea, the irregular dilatation and eccentric position of the pupil, atrophy of the visible portion of the iris, the marked shallowness of the anterior chamber and the greenish reflex from the lens combine to form a picture which once seen can always be recognized. Central vision slowly fades and the visual field gradually contracts. The disease proceeds until the condition of absolute glaucoma is reached.

In noninflammatory glaucoma the onset is the most insidious of all eye diseases. In the earliest stages there are no symptoms. After a lapse of months, perhaps years, there may be slight dilatation and inactivity of the pupil and a slight increase in the tension of the eyeball. This may be accompanied by haziness of the cornea with diminished sensibility. Vision becomes greatly impaired, but central vision may be well preserved until late in the disease, enabling the patient to read fine

print although not able to see to walk. Total blindness comes on suddenly. Cupping of the optic nerve is the most prominent objective symptom, and is present long before total blindness is produced.

Secondary glaucoma is the name applied to a condition in which the cardinal symptoms of glaucoma develop during the course of some other disease or injury. It often occurs in perforating wounds of the cornea, suddenly closed corneal fistula, serous iritis, choroiditis, traumatic cataract, intraoccular tumors and contusions of the eyeball. If glaucoma develops in one of the above conditions and is accompanied by hemorrhage, the condition would be known as hemorrhagic glaucoma. Complicated glaucoma is the name applied to cases of glaucoma that exist at the same time as some other disease of the eye which does not have an etiological bearing on the glaucoma. The principal of such diseases are cataract, optic atrophy and myopia.

Buphthalmos is the name applied to a form of glaucoma occurring in childhood, in which there is not only increased tension and cupping of the optic disc, but also enlargement and deformity of the eyeball. The cornea may be clear or opaque and is very thin. The pupil is dilated and the lens remain small. The sclera of the eye in the infant is more yielding than in the adult, which accounts for the enlargement and deformity.

Cataract

Definition.—A general term embracing any opacity of the crystalline lens or its capsule. A capsular cataract is a thickening or hyperplasia of the capsule of the lens, causing it to be opaque. This may be congenital, primary or secondary. A capsulo-lenticular cataract is the name applied to a form in which there is opacity of the lens and capsule.

Adjustment.—Upper cervical with K. P.

Pathology.—Any condition which interferes with the nutrition or osmotic action of fluids in the anterior part of the eyeball, or inflammatory conditions of the lens or structures near the lens are capable of producing cataract. The changes occurring in the lens are slow and progressive. At first there is a slight

contraction of the fibres of the lens which is followed by atrophy and the formation of irregular interspaces which are filled with large quantities of fluid. Finally the lenticular fibres show cloudiness, transverse striations, fat globules, cholesterin, pigmentation and other signs of degeneration.

Symptoms.—In the early stages the principal subjective symptom in all forms of cataract is the gradual, but steady loss of vision. In those cases where the periphery of the lens is first affected by the opacity, vision may remain good until late in the disease. Such an opacity is called **cortical** cataract. If the opacity begins near the center of the lens it is called a **nuclear** cataract, and interferes with vision in its earliest stages. In most all cases there are floating specks, diplopia and alterations in refraction. These are all due to the irregular swelling of the lens substance, which may be so great at times as to produce myopia, which is commonly called the second sight in old age. Among the objective symptoms will be found swelling and bulging of the lens, which presses upon the iris and thus narrows the anterior chamber; photophobia and a discolored pupil, which may be brown, yellow or white. This latter symptom, however, may be absent.

In the **first stage** the opacities are scattered throughout the lens in the shape of spots or lines, which radiate toward the center, leaving places between them that are still transparent. In the **second stage**, which is called the stage of swelling, the lens has absorbed more fluid, and because of this enlargement has pushed the iris forward, reducing the depth of the anterior chamber. In this stage opacity becomes complete, and the lens has a bluish-white color. In the **third stage**, which is also called the stage of maturity, contraction takes place and the absorbed fluid pressed out. The anterior chamber then resumes its normal depth and the iris becomes dull gray or brown in color.

The **process of ripening** varies from a few months to several years, but the usual time is from one to four years. When the entire substance of the lens has become opaque, when the swelling has subsided, and the anterior chamber has resumed

its normal depth, the cataract is said to be ripe. This may be determined by illuminating the pupil and carefully observing if a shadow of the margin of the iris is reflected from the lens. If no shadow exists the opacity is complete, but if a shadow is present there is still a transparent reflecting layer of the lens beneath the capsule.

Congenital or juvenile cataract is a rare occurrence and consists of localized opacities in certain layers of the lens between which are clear spaces. Little but a gray blur can be detected by close inspection. Retinoscopic examination reveals a sharply outlined opacity, which is surrounded by a reddish circle, due to reflection from the fundus. There are usually constitutional disturbances, among which are, syphilis, rachitis and tuberculosis. About eighty per cent of these cases have some disease having convulsions.

Traumatic cataract results from laceration of the capsule of the lens, and its progress is dependent upon the amount of surface exposed to the torn capsule. If the anterior capsule is torn, the aqueous humor is absorbed, and if the posterior capsule is torn, part of the vitreous humor is absorbed, causing the lens to swell, become disorganized and opaque. If the cataract develops following a blow on the head or side of the face, or from an explosion, it is termed a concussion cataract.

Complicated cataract may result from disease in almost any part of the eye, and is produced by an extension of the inflammatory changes to the lens.

Senile or hard cataract is also called gray or simple cataract, and usually develops after the forty-fifth year. The cataract may remain stationary, or it may ripen completely in a few months, or there may be times that it ripens rapidly, and other times that it progresses slowly in the same case. Both eyes are nearly always affected, but one considerably in advance of the other. The central layers of the lens are normally more dense than the superficial layers, and are called the nucleus, while the softer surrounding mass is called the cortex. This difference is more pronounced after the thirty-fifth year, but if the condition of hardening and staining continues at an advance in its

rate, the center becomes opaque and is called a nuclear cataract. It is rare, however, that the cortex is not involved in this process of hardening and opacity, and when such is the case it is called a cortical cataract. It begins and progresses as previously described.

Secondary cataract includes three varieties, as follows: Anterior polar or pyramidal cataract, which usually results from a central perforating ulcer of the cornea, and appears as a conical mass projecting forward from the surface of the lens. It is white in color and visible through the pupil. Posterior polar cataract usually results from disseminated choroiditis. It manifests itself as a star-shaped opacity in the lens, with or without opacity in the vitreous body. It is always associated with a high degree of myopia. After cataract is a condition left or resulting from an operation for cataract. The changes occur in the capsule and result from a proliferation of its connective tissue or from a plastic exudate, which occludes the pupil.

Diabetic and albuminuric cataract are forms developing in individuals suffering with these diseases. They are largely dependent for their existence upon diabetes and nephritis, and are often associated with retinitis, due to the same diseases. Many of these cases make very good recoveries under adjustments for these respective diseases.

Hyalitis

Definition.—Inflammation of the vitreous humor, and may be suppurative or characterized by the presence of floating opacities in the body.

Adjustment.—Upper cervical with K. P.

Symptoms.—As the vitreous humor has no bloodvessels, the signs of inflammation are limited to the adjacent structures and their exudate is forced into the vitreous humor. Most cases are secondary to inflammatory conditions of the choroid, cilliary body, retina or lens, consequently the symptoms of the primary condition are always present. When pus forms in the vitreous humor it is in a circumscribed mass, and can be seen with the

ophthalmoscope. It is attended by fever, pain over the eye, loss of sight and finally atrophy of the eyeball. Previous to the loss of vision, there is a scotoma in the visual field which corresponds to the opacity in the vitreous humor.

Opacities of the Vitreous

Definition.—Any movable or fixed opacity in the vitreous humor, which causes dark spots or areas in the field of vision.

Adjustment.—Usually upper cervical with K. P., but lumbar with Li. P. subluxations will cause opacities.

Symptoms.—These opacities can be seen by the patient as black spots or areas which may be movable or fixed. The patient is able to describe their size, shape and position. When the opacities are very small there may be no interference with vision, but when large and fixed there may be great interference with vision. If pain is present it is quite certain that the opacity is secondary to inflammation in some part of the eye. The ophthalmoscope shows the positive existence of these opacities. Under this inspection it will be seen that when the patient moves the eyeball toward the right the opacity moves toward the left. In this way opacities of the vitreous can be distinguished from those of the lens or cornea, which are fixed and move with the movements of the eyeball. A patient may have temporary dark spots before the eyes resulting from a neurosis of the retina or optic nerve, and not from opacities in the vitreous.

Embolism of the Retinal Artery

Embolism of the central artery of the retina most commonly occurs in valvular disease of the heart, arteritis, nephritis and arteriosclerosis, consequently the adjustment depends upon the condition to which the embolism is secondary, as well as the local zone. Upper cervical and K. P. should be included in every case.

Pathology.—The embolus may consist of endothelium which has sloughed from the inner lining of the bloodvessels or heart. It may be granular in nature or may consist of a hyalin plug.

The lumen of the vessel may be partially or completely occluded. After the obstruction has taken place the retina, optic nerve and choroid undergo atrophy. The embolus does not always block the central artery itself, but may lodge in one of its branches, in which case the atrophic changes are limited to a small area and may disappear as the collateral circulation is established. In this latter type of cases the vision may remain normal or be but slightly affected.

Symptoms.—The onset is sudden with complete loss of vision, without any pain or other sensory disturbance. When affecting one eye, and this is usually the case, the patient may remain entirely ignorant of his blindness for a considerable time. In other cases the patient may see sudden flashes of light or a few dark rings as vision hastily departs. The ophthalmoscope shows a marked ischemia of the retina. The arteries and corresponding veins are small and contain broken cylinders of blood, separated by clear spaces, which can be seen moving sluggishly along. The retina is pale and the optic nerve is nearly white. This contrast is decidedly seen by comparing it with the unaffected eye. A characteristic feature of the disease is that the macula stands out prominently as a cherry red spot, even though the rest of the retina be pale. In the course of several weeks, cases having complete obstruction show a decrease in the retinal edema, atrophy of the optic disc, and white lines marking the course of the functionless vessels.

Thrombosis of the retinal artery may occur under the same circumstances as embolism and may form in the main artery or one of its branches. The symptoms and appearance of the retina are the same as described with the exception that they develop gradually.

Thrombosis of the Retinal Vein

Adjustment.—Upper cervical with K. P.

Symptoms.—When thrombosis affects small veins the symptoms consist of a number of insensitive spots on the retina, which produce blind spots in the field of vision. These correspond in size, shape and location to the part affected by the thrombus.

Complete thrombosis of the central vein causes great engorgement of the retina, with venous pulse and numerous retinal hemorrhages. In cases of short standing, where the vitreous is still clear the condition can be readily recognized with the retinoscope, but in time the vitreous humor becomes opaque from absorption of the soluble constituents of the blood.

Simple or Serous Retinitis

Definition.—An inflammation of the superficial layers of the retina.

Adjustment.—Upper cervical with K. P.

Pathology.—In the early stages the principal alteration consists of hyperemia of the retinal vessels with edema and some infiltration of leucocytes into the inner layers of the retina. When becoming chronic there is an overgrowth of connective tissue and atrophy of the retina.

Symptoms.—Retinoscopic examination shows three prominent and characteristic objective symptoms, which are: First, edema of the retina. It appears as seen through a mist, has a grayish color, and the vitreous may be cloudy from the infiltrated serum. Second, the veins are altered, being distended at some points, and covered by the swollen retina at other points. Third, retinal hemorrhages may be seen, but they are small and not numerous in the simple form of the disease. The first subjective symptom to present itself is a loss of the acuteness of central vision associated with contraction of the visual field. If the inflammatory process is localized in a small part of the retina, the scotoma will be small and situated in a corresponding part of the field of vision. There is a marked distortion of vision due to the swollen retina having changed its position. This makes objects look larger or smaller than normal, according to the changes that have taken place. An occasional symptom is the ability to see better by a poor light than by a bright light, and as a rule these cases can see better in the evening after sundown than during the day. Pain is seldom present, even though there be a high degree of inflammation present.

Retinitis due to concussion and to syphilis present the same

symptoms, but the history of the case is usually sufficient to indicate whether either condition is an etiologic factor of the retinitis.

Macular retinitis is a term applied to any inflammation of the retina which is localized in the macular region.

Parenchymatous Retinitis

Definition.—A form of retinitis involving the deep layers.

Adjustment.—Upper cervical with K. P.

Pathology.—Begins with hyperemia, edema and an infiltration of white cells in the deep layers of the retina. This is followed by absorption of the products of inflammation and partial or complete atrophy of the retina, with abundant overgrowth of connective tissue.

Symptoms.—The arteries are found to be distended with blood, and the optic nerve to be a deeper red than normal. The veins are also overfilled and occasionally have minor hemorrhages into the adjacent structures. These hemorrhages are especially common in retinitis of nephritic origin, and hemorrhages appear as small red spots. When the hemorrhage is large it is most commonly linear in shape and is called hemorrhagic retinitis. There is dullness of vision, increasing at a rather rapid degree, and may result in total blindness if the inflammation is general. If the inflammation is circumscribed there is a scotoma in the corresponding part of the field of vision. Pain is absent, but distortion of objects sometimes exist. If but one eye is affected the condition may be far advanced before detected. This form of retinitis may begin as the serous type, or the two forms of the disease may coexist in different parts of the retina.

Nephritic Retinitis

Definition.—A general term which includes all changes in the retina directly dependent upon some disease of the kidney.

Adjustment.—K. P. is the most important adjustment, but upper cervical may be taken in combination.

Pathology.—The retina becomes hyperemic and edematous.

The connective tissue in the deep layers undergoes hyperplasia and finally fatty degeneration, after which the retina may be the sight of numerous hemorrhages.

Symptoms.—In albuminuric retinitis the patient first complains of imperfect vision, which progressively increases. The macula is often the last part of the retina to become affected. This preserves central vision late in the disease. Both eyes are usually involved to about the same degree. If the case is unilateral it soon becomes bilateral. The ophthalmoscope shows fatty deposits in the posterior part of the retina. These spots are very small and have the appearance of minute dots, which are arranged in the form of a circle around the macula. In the macula itself there is usually one or more of these white spots, from which radiate a number of thin, white, glistening lines. These two signs are considered as the ophthalmoscopic picture of the disease, and sufficient to recognize it. Retinal hemorrhages may occur, and are usually long or linear in shape, very rarely being dotted or sheet like. They are due to changes in the arterial walls. The optic nerve is swollen and streaked with enlarged vessels.

The prognosis in cases due to pregnancy is good, but those due to nephritis and arteriosclerosis are less favorable, as statistics show that sixty-two per cent of such cases die within the first year and ninety-three per cent within the first two years.

Diabetic retinitis has the same structural changes as the albuminuric form. The retina after being inflamed undergoes fatty degeneration. The subjective symptoms relating to the eye are the same in all forms of nephritic retinitis, but the constitutional symptoms in this form are those of diabetes. Examination of the eye in diabetic retinitis shows no lines radiating from the macula and hemorrhages are much less common.

Retinal Hemorrhage

Definition.—An effusion of blood from the retinal vessels, and is also called apoplexy of the retina.

Adjustment.—Upper cervical with K. P.

Pathology.—Hemorrhages may occur in connection with

retinitis, and is then spoken of as hemorrhagic retinitis, but the condition called retinal hemorrhage more commonly occurs because of changes having taken place in the vessel walls. The changes may be those of fatty degeneration, arteriosclerosis, venous obstruction or vasomotor weakness. The hemorrhage may take place in any layer of the retina, but when superficial they leave the retina in a healthy state, and after absorption of the effused blood leave no visual defect. Sometimes the blood breaks through the limiting membrane and passes into the vitreous humor. The macular region is the favorite location for retinal hemorrhages.

Symptoms.—The onset is sudden and the extravasation is apt to be large when no inflammatory condition exists. The patient sees a veil or a cloud moving from above downward, which greatly interferes with vision. It is most common in the macular region, where it can be seen as an irregular or oval blotch with the long diameter vertical. There may be partial or complete blindness which gradually diminishes for two to four weeks as the blood is absorbed. If absorption is incomplete a scotoma will exist in the field of vision. Oftentimes these hemorrhages will recur, each attack presenting the same symptoms.

Sclerosis of the Retina

Definition.—A hardening of the retina, due to an overgrowth of its connective tissue.

Adjustment.—Upper cervical with K. P.

Pathology.—In the earliest stages there are signs of inflammation with proliferation of the connective tissue, forming the supporting structure of the retina. This is followed by sclerosis of the retinal vessels, with contraction of their diameters, atrophy of the nerve elements and destruction of the rods and cones. In the pigmented form there are pigmentary deposits of various shapes in the retina.

Symptoms.—Night blindness is ordinarily the first symptom to attract the attention of the patient, but changes can always be observed in the retina when this symptom is present. Central vision is lost, the field of vision contracted and myopia present.

Often the patient is unable to recognize the colors red and green. The optic disc is red or gray in color, or may have a glistening tendon-like whiteness, when pigmented, dark spots or areas are seen, especially along the temporal side of the fundus. The pigment is arranged in a peculiar manner, making that part of the retina affected appear to be studded with Haversian canals, which gives it a star-like appearance.

Detachment of the Retina

Definition.—A condition in which the retina and choroid become separated, the former floating in the vitreous humor.

Adjustment.—Upper cervical and K. P.

Pathology.—It may be produced by a stretching of the sclerotic and choroid, they being drawn away from the retina; the retina may be pushed from the choroid into the vitreous by a tumor or an accumulation of fluid, which may have exuded from the choroid during the process of inflammation, or it may be drawn from the choroid by changes occurring in the vitreous body and rupture of the retina which permits fluid to pass in behind it.

Symptoms.—Most commonly there is a fluid behind the retina, which gives it a pale color. Its vessels can be seen plainly as they retain their position in the retina. They appear as dark cords and are smaller than normal. The border of the detachment is sharply outlined by a yellowish or pigmented line. The fluid always gravitates toward the lower portion of the globe, and even though the detachment be at the side or above, the fluid will find its way to the lowest level. Sometimes the detachments are small, and have a furrowed appearance. In other cases they are almost circular in shape. The rods and cones become swollen, losing their original structure and function. The ophthalmoscopic picture is not likely to be mistaken for anything else. The detached portion of the retina is of a grayish white color, having wavy folds, which are transversed by vessels, and are readily seen in this light background. When the detachment occurs suddenly, the patient notices a dark cloud or mist which he may try to push away. This is the scotoma corresponding to the detach-

ment. The lines on a page appear to be zigzag, widely separated and arranged in a wave-like form. The prognosis is favorable under adjustment, but recovery is slow and gradual.

Papillitis

Definition.—An inflammation of the optic disc or that part of the optic nerve within the eyeball. It is also called intraocular neuritis.

Adjustment.—Upper cervical and K. P.

Pathology.—This is known as a choked disc and presents the signs of simple inflammation, followed by proliferation of connective tissue, sometimes hemorrhage and finally optic atrophy.

Symptoms.—The optic disc is swollen and raised above the surface of the retina, the larger vessels are readily visible, the veins being slighty distended and the arteries often decreased in size. Small patches of exudate and hemorrhage may be seen in the adjacent retina. The condition of the optic disc may undergo but very little change for a year or more, after which time a condition of optic atrophy supervenes. Vision may vary from normal to complete blindness. If the acuteness of vision varies greatly without any change in the appearance of the disc, it indicates that the disturbance is due to intercranial lesions. When vision is good with a choked disc it is of short duration and may be explained by the fact that adaptation may take place so long as the structure of the nerve is not destroyed. The patient may have a scotoma in the field of vision which is always contracted. Some patients are devoid of the color sense and complain of flashes of light or other subjective symptoms.

Optic Atrophy

Definition.—The name applied to the disappearance of a large or small number of fibers of the optic nerve which have become pale and overgrown with connective tissue.

Adjustment.—Upper cervical.

Pathology.—The structural changes are those of a chronic

neuritis, which terminates with proliferation of connective tissue and atrophy of the nerve fibers pressed upon.

Symptoms.—The optic nerve becomes bluish-white or grayish-white in color with clear cut edges. The vessels often show some reduction in size, and if there has been an acute inflammation, white streaks of connective tissue can be seen along the larger blood vessels. The optic disc assumes a chalky white color. There are visual disturbances which develop very gradually. Central vision becomes poor and the field of vision contracted. Vision is gradually but progressively lost. A few cases may become stationary at any stage of the atrophy, never becoming totally blind, but always having poor vision. The duration before total blindness varies from three months to about three years.

Amblyopia and Amaurosis

Definition.—Amblyopia means dull eye, and is a term applied to dimness of vision or partial loss of sight occurring without any change in the occular structure. Amaurosis, which means dark eye, is a term applied to a condition of complete blindness having no pathology.

Adjustment.—Usually upper cervical, but may be of a toxic character as when due to lead, iodin, bromin, malaria and diabetes, in which case K. P. should be included.

Symptoms.—When an eye has never taken part in the visual act to a normal degree it is called congenital amblyopia. In such cases there is usually an early squint, although the positive signs are not present until the child becomes old enough to notice objects both close and at a distance. Amblyopia for colors is also called color blindness. It occurs to some extent for certain colors in about three per cent of the entire population, being much more common in men, and is always bilateral. Amblyopia has been known to result when there is uremic poisoning of the visual centers in the brain without producing a retinitis. Examples of this are common in the late stages of scarlet fever, and when occurring is called uremic amblyopia. When accompanying diabetes it is called glyclosuric amblyopia. Other cases have been known to occur with loss of blood, as in anaemia or hemor-

rhage; other cases from worms and digestive disturbances. Amblyopia and amaurosis are recognized by the fact that vision is poor or absent and there are no signs to indicate disease of the eyes.

Eyestrain

Definition.—Is a condition developed by prolonged effort on the part of the accommodating apparatus of the eye.

Adjustment.—Upper cervical.

Symptoms.—When the cilliary muscle becomes tired from prolonged use of the eye at close work, looking at small objects brought near the eye, or reading while on a moving car, which causes the accommodation to rapidly change, the patient becomes affected with headache and blurring of vision, which is commonly called eyestrain. This is more especially true if the patient's eyes are myopic or hyperopic. Eyestrain is manifested by failure of near vision after use of the eyes, blurring of distant vision, dilatation of the retinal vessels, redness and swelling of the optic nerve, and congestion of the conjunctiva. There is always headache, which may be confined to the region over or behind the eyes, or may become general over the entire head. This headache may be limited to one side of the head, and as a rule is aggravated upon use of the eye. Patients having eyestrain complain of being nervous, and as a rule are very irritable, peevish and emotional.

Hyperopia

Definition.—Hyperopia is an error in refraction, which occurs when the retina is situated in front of the principal focus.

Adjustment.—Upper cervical.

Symptoms.—On account of the eye having to use some accommodation at all times, when hyperopia exists, it is deprived of its periods of rest which come to the normal eye when fixed on distant objects. As a result of this overwork, the power of accommodation will become decreased prematurely. At birth nearly all eyes are hyperopic, but it gradually disappears until about the twenty-fifth year, when the lens enlarge. It is claimed

that the lens increases one-third in size from the twenty-fifth to the sixty-fifth year, therefore there is a natural tendency for hyperopia to occur to a slight degree during these years. Since hyperopia can be corrected by accommodation it is only the highest degrees that produce symptoms. The earliest sign is a convergent squint and poor vision, with a tendency to hold the printed page close to the eye as in myopia. When the condition is not corrected the individual becomes affected with eyestrain. Far-sightedness can only be detected by the proper eye tests.

Myopia

Definition.—Myopia or near-sightedness is a condition in which the rays of light are brought to a focus in front of the retina.

Adjustment.—Upper cervical.

Symptoms.—High degrees of myopia are much more common than hyperopia. In myopia all objects situated beyond the far point of the eye are indistinct. This indistinctness can be removed or lessened by moving the object closer to the eye, by looking through a concave lens or through a pin hole opening in a card. Objectively the myopic eye appears large and elongated. This change in its shape may be due to a congenital deformity of the eyeball, but most cases result from some pathological condition of the eye. Weakness of the sclera and an increase in the intraocular tension are especially apt to bring about this deformity. Myopia is recognized by the proper eye tests.

Astigmatism

Definition.—It is a defect in which the rays of light from a single point do not, after refraction, meet at a single point.

Adjustment.—Upper cervical.

Symptoms.—Generally lines can be seen clearly only when they run in some one direction, and this direction is that of one of the principal meridians. When the patient observes a number of lines running in different directions some of them appear very indistinct. It will be found that these indistinct lines lie in the

meridian involved. This blurring may be overcome for short intervals by the accommodative action of the cilliary muscles. When the astigmatism exists alone, the blurring is not more than one-half as great as that produced by myopia or hyperopia of the same degree. *Astigmatism with the rule* is more common and occurs when the visual defect exists with the meridian of greatest refraction vertical. *Astigmatism against the rule* means that the meridian of greatest refraction is horizontal or nearly so. It is much less common. Irregular astigmatism is the result of disease of the cornea in which its surface is left irregular, having depressions or elevations. This latter condition can not be corrected by lenses nor adjustments.

Presbyopia

Definition.—Presbyopia means the old eye. It is the failure of accommodation with age, which leads to inability to change the optical condition of the eye, so that only rays of a certain convergence or divergence can be focused on the retina.

Adjustment.—Upper cervical.

Symptoms.—When the eye is used in close work for an unusual time symptoms of eyestrain develop, headache, pain in and over the eyes and congestion of the conjunctiva. If the effort is sustained for some time, the cilliary muscles suddenly relax, and all near objects become blurred. If the eyes are then rested for a short time the power of distinct vision again returns. Persistent near vision causes frequent failures of accommodation until in time the attempt will stop.

Strabismus

Definition.—It is more commonly known as cross-eye, and is the inability to bring the visual axes to bear upon one point at the same time.

Adjustment.—Upper cervical is the specific adjustment as this condition is due to involvement of the oculomotor or abducens nerves. They communicate with the first four spinal nerves by means of the carotid and cavernous plexuses.

Symptoms.—Strabismus may affect one or both eyes and is due to paralysis of one or more of the recti muscles. If the eyeball is turned toward the external angle of the orbit it is called divergent or external strabismus, a condition due to paralysis of the internal rectus muscle, which is supplied by the oculomotor nerve. When both eyes are involved by this divergent strabismus a peculiar facial expression is produced, called Hutchinson's face.

If the eyeball is turned toward the nose it is called convergent or internal strabismus, a condition due to paralysis of the external rectus muscle, which is supplied by the abducens nerve. This is by far the most common form of strabismus.

SECTION XIII.

DISEASES OF THE SKIN

GENERAL SYMPTOMATOLOGY

It is necessary to acquire a definite understanding of the various lesions encountered in skin diseases as it is the aggregate of these that constitutes the objective changes of those diseases and establishes the basis for their recognition.

These lesions or objective structural changes are divided into two classes, viz., primary and secondary.

Primary Lesions

Macules are variously sized and shaped areas of discoloration characterized by the absence of elevation or depression.

Papules are circumscribed, solid elevations of the skin and vary in size from a pinhead to that of a pea.

Vesicles are slight elevations of the skin containing a clear or opaque fluid. Size, that of a papule.

Pustules are slight elevations of the skin containing pus and are about the size of vesicles.

Blebs or bulla are large elevations of the skin containing a clear or opaque fluid and vary in size from that of a pea to that of a goose egg.

Wheals or pomphi are circumscribed areas of cutaneous or subcutaneous edema of a temporary character.

Nodules are solid elevations of the skin of deep origin and vary in size from that of a pea to that of a cherry.

Tumors are typical growths of various size, shape and consistence seated in the deep layers of the skin.

Secondary Lesions

Crust is a dried secretion or exudate upon the skin and is usually of a dark color.

Scale is a circumscribed thin layer of epidermal cells which have become detached and are about to be shed. They are light in color.

Excoriation is a scratch mark or a superficial denudation of the skin.

Fissure is a crack in the skin extending down to the corium. Usually located in the folds of the skin over the joints.

Ulcer is an irregularly shaped and sized circumscribed area of necrossed tissue involving a free surface.

Cicatrix is a scar or the effort of Innate to heal a damage to the skin by means of connective tissue. They occur only where the papillary layer of the skin is destroyed.

Six Dermatological Don'ts

1. Don't form an opinion from the history of the case. Note the eruption and all other symptoms, then substantiate it by the history.

2. Don't form an opinion of syphilis because of a syphilitic history. People with syphilis may have other skin diseases.

3. Don't depend upon any one symptom, but let your opinion be guided by the general makeup of the disease as a whole.

4. Don't forget that many conditions of the skin are dependent upon disturbances in the general health of the patient. Therefore—

5. Don't forget to inquire into the performance of the various organs and aim to put the patient in as good a physical condition as possible.

6. Don't encourage the popular notion that there is danger of an eruption "going in," for it never does under Chiropractic adjustments.

Abscess

Definition.—A collection of pus circumscribed by a pyogenic membrane and located in the subcutaneous tissue.

Adjustment.—Local in combination with K. P.

Pathology.—Usually met with as a complication of other skin diseases such as eczema, scabies and acne. Consists of a localized area of hyperemia and swelling into which there is an infiltration of cells which undergo decay forming pus.

Symptoms.—Abscesses of the skin usually develop suddenly and are small in size except when on the scalp. They form round swellings which are hard or firm to the touch at first, but soon become soft and fluctuate under pressure. When opened they give off a thick pus. They are most common on the scalp with eczema, on the face and back with acne and on the extremities with scabies. They may disappear by absorption or open of their own accord. There is but slight pain and discomfort in cutaneous abscesses. Abscess differs from a boil in that it is not raised and pointed, does not have a central core and is less firm. They differ from carbuncles by the absence of constitutional symptoms, brawny infiltration, intense inflammation and cribiform mode of opening.

They differ from syphilitic gumma in that gumma has no pain, dark red in color, grows slowly, usually multiple and when cut gives off but little bloody fluid.

Acne

Definition.—An inflammatory incoordination of the sebaceous glands and hair follicles; characterized by a retention of their sebum and an eruption of papules, pustules or nodules upon the face, neck or shoulders.

Pathology.—Acne begins in the hair follicles or sebaceous glands with hyperæmia, swelling and thickening of the wall of the opening through which the sebum reaches the surface. This causes inspisation of the retained sebum and results in the formation of a papule located in the upper part of the skin. When in this stage is called **acne papulosa.** This may be followed by proliferation of the surrounding connective tissue, the extent of which is variable, forming nodules which are sometimes called tubercles, constituting the lesions known as **acne tubercula.** Finally suppuration takes place in which

the gland is destroyed and pus forms, occupying its site, constituting the lesion, which predominates in the stage called acne pustulosa. When the skin lesions in acne are largely formed of connective tissue or are surrounded by great thickening of the connective tissue, making them of deep origin and nodular in size, it is called acne indurata.

Adjustment.—K. P. Since acne is an inflammatory incoordination involving tissues in many zones it would indicate a dormant condition of lowered tissue resistance which may be irritated or injured by the presence of toxines or excretory material which might be retained within the body because of poor elimination either by the kidneys or bowels, therefore it may be necessary in some cases to adjust in the lumbar region. This would be determined by the history of the case.

Symptoms.—The first stage in all cases of acne is known as acne vulgaris or acne simplex. It is characterized by the appearance of pinhead to pea sized papules, which are flat or slightly pointed and situated about the hair follicles. These papules are usually red in color but may have a dark or black center. They may first appear on any part of the body, but most commonly on the face, neck or shoulders. A few pustules may appear early, but so long as papules predominate it is called papular acne. The pustules have a red base with a yellow center and of the same size and shape as the papules. There is no pain in these pustules unless they are bruised by handling or other injury. The skin between the lesions is usually greasy and the pores of the skin very large and often clogged with dirt, constituting the comedo or common blackhead.

Acne indurata is a form of pustular acne in which the pustules are large and deeply seated, being surrounded by an abundance of overgrown connective tissue. They sometimes coalesce and form subcutaneous abscesses which, when open, discharge much pus and leave large scars. This form may exist alone, but usually a few of these indurated pustules are found in cases of acne simplex. After the disappearance of the eruption acne may leave the skin the site of many deep scars, which is called acne atrophica; or acne hypertrophica if the scar has a decidedly raised margin.

Acne artificialis is the result of large doses of bromides, iodides and tar products. Its papules and pustules are the same as previously described. The history of such a case would show the use of some of these drugs. When use of the drug ceases the eruption disappears, hence this is really a skin poisoning or dermatitis.

Acne frontalis is applied to cases in which the lesions are confined to the forehead along the hair-line. Its papules are very small and leave brownish red scars. The course in these cases is usually very chronic.

Differential Symptoms.—True acne differs from acne rosacea in that the latter is confined to the middle third of the face, has but few papules, but great redness and thickening of the skin.

Acne differs from papular eczema in that the latter may be found in patients of all ages, does not occur on the face alone, often found upon the extremities alone, has no comedones and usually has excoriations.

Acne differs from pustular eczema in that the latter is usually found in children, while acne is rarely found before puberty. The pustules are many, they coalesce, form green crusts and run an acute course.

True acne differs from syphilitic acne in that the latter is general in its distribution and always has other evidences, such as the scar of the initial lesion, enlarged lymphatics, uniform lesions, mucous patches, a few months duration and leaves small white scars.

Acne Rosacea

Definition.—A chronic, inflammatory affection of the nose and cheeks characterized by engorgement of the blood vessels, hypertrophy of the skin and acne-like eruptions.

Pathology.—Acne rosacea begins with hyperaemia and stasis in the capillaries which is followed by hypertrophy of the capillary walls, interrupting the circulation and by inflammation of the sabaceous glands forming papules and pustules. This constitutes the principal changes occurring in typical cases, but occasionally the process progresses with hyperplasia of the connective

tissue, which greatly deforms the nose. This deformity is called rhinophyma.

Adjustment.—Middle cervical and K. P.

Symptoms.—The onset is slow and insidious, with diffuse redness of the nose, which is increased upon exposure to the cold. This redness is often transient. The skin of the nose is usually greasy and cold. Later the capillaries become dilated and are plainly visible. Papules develop and may gradually merge into pustules, but these are always few in number. The skin becomes hypertrophied, resulting in dark red bulky formations, deforming the nose. The latter stage is fortunately rare.

Bromidrosis

Definition.—A condition in which the sweat has an abnormal but distinctive odor.

Adjustment.—When primary K. P. is the adjustment. When symptomatic, such as in hysteria, adjust for the disease of which it is symptomatic.

Symptoms.—Bromidrosis is usually associated with hyperidrosis and often is limited to the feet and axilla, but may be general, as in the negro race. The odor is not always offensive, as cases have been reported having the odor of some flower or drug. Fever has a peculiar odor that could be classed as bromidrosis. This is pronounced in measles. When localized the affected parts are usually of a pinkish color, may be tender and become sore easily. The odor is due to decomposition of the fatty acids in the sweat.

Chromidrosis is sweat having an abnormal color and may be associated with both bromidrosis and hyperidrosis. It is usually localized in limited regions, predominates in women and may result from the use of drugs. The colors may be yellow, green, red, blue or purple.

Carbuncles

Definition.—A suppurative inflammation of the subcutaneous tissue involving several hair follicles or sebaceous glands.

Pathology.—Begins with localized hyperaemia and swelling of the skin. The sebaceous glands involved become converted into retention cysts. Their contents suppurate and they perforate the skin, forming sieve-like openings.

Adjustment.—Local and K. P.

Symptoms.—Begins with a papule, which within twenty-four hours becomes large, very painful and slightly raised, having an indurated, brawny base. Constitutional disturbances consisting of malaise, fatigue, loss of appetite, headache and rise in temperature develop and persist until the pus is discharged. The pain becomes very severe and is of a throbbing or lancinating character. In ten days the swelling has reached its height. It is then very firm to the touch and may be as much as two or three inches in diameter at the base. The process of softening is marked by several pea-size purulent points, which finally break, discharging pus and from which the core or destroyed gland finally sloughs. These openings may unite to form an ulcer, and as the ulcer deepens the whole mass may fall out, leaving a scar upon healing.

A carbuncle differs from a boil by having a brawny base, greater pain, constitutional disturbances, multiple sieve-like openings and longer duration.

Chloasma

Definition.—An incoordination of the skin characterized by a yellowish-brown pigmentation of various sizes and shape. It is also commonly called liver spots and moth.

Adjustment.—Usually K. P., but if symptomatic should include local for the condition to which it is symptomatic.

Pathology.—This is considered to be a trophic neurosis of the skin, resulting in increased deposit of normal pigment in localized areas of the mucous layer of the epidermis.

Symptoms.—Chloasma is considered as being idiopathic or symptomatic, but from a Chiropractic standpoint would be better considered as primary and secondary. The symptomatic variety being secondary to the disease of which it is a symptom. We have good examples of this in cancer, syphilis, cirrhosis of the

liver, malaria and Addison's disease. The primary form may follow irritations of the skin produced by blisters, plasters, scratching or exposure to the sun's rays or wind. The spots are usually yellow or brown in color, they vary in size from a small coin to almost universal discoloration. Spots have irregular outlines, cannot be washed off and have no roughness which can be detected by palpation.

Chloasma uterinum is a discoloration occurring in females between the ages of twenty-five and fifty. It is often seen during pregnancy and in diseases of the uterus causing irritation. The spots have brownish discoloration, may occur over the forehead, temples, cheeks and around the mouth, more rarely on the abdomen and thorax. Occasionally it is associated with leucoderma or patches of white skin in which the normal pigment is deficient or absent. Chloasma can readily be differentiated from diseases simulating it in that they can either be washed off, scraped off or leave the skin a harsh, rough appearance.

Clavus or Corn

Definition.—A corn is a hyperplasia of the corneus layer of the skin having a central core that grows downward into the corium.

Adjustment.—Often this is caused by wearing poorly fitting shoes, which cramp the toes, thus subluxating the first phalanx and can be relieved by adjustment of this articulation.

Symptoms.—They occur upon the toes most commonly and differ from callouses in having a central core that grows down toward the corium. Hard corns grow on the joints, while soft corns grow between or under the toes, where they are kept moist by perspiration. They may become more painful during wet weather on account of being hygroscopic.

A **bunion** may result from an outward displacement of the first phalanx of the great toe, which produces a periostitis with hyperplasia and finally exostosis of the metatarsal bones. The pressure that then results between the exostosis and shoe gives rise to an inflamed bursa, which constitutes the bunion.

This may be relieved by adjusting the first metatarso-phalangeal articulation.

Chromophytosis

Definition.—A disease of the skin characterized by brownish variously shaped and sized patches occurring upon the surface of the skin of the chest or other portions of the body.

Adjustment.—K. P.

Symptoms.—This is also called tinea versicolor and occurs most commonly between the twentieth and fortieth year. It is supposed to result from a vegetable parasite called the microsporon furfur, which does not grow on all skins, but seems to flourish best where the skin is sweaty. It begins with a small yellowish or brown spot, many of which may coalesce to form large patches. These patches are round at first but as they get larger become irregular in shape. The edge of the patch is always definitely marked. When the skin is warm the brown patch presents a pinkish hue and this is also true after bathing or scraping the skin. At times the patch is dry and scaly and other times it is smooth and greasy. The sternum is the most common location but the discoloration may extend to the back, shoulders and arms. The number of patches may vary from a few to hundreds and they are not symmetrical. Subjective symptoms are usually absent but there may be slight itching when the skin is sweaty or the patch has been recently irritated.

Dermatitis

Definition.—Dermatitis is an inflammation of the skin.

Adjustment.—The adjustment is to be determined by the character of the case. If a simple localized inflammation resulting from a local irritation the adjustment would be local in the zone affected. If it be localized but the result of a toxic condition K. P. would be important, while if it be associated with high fever and general in its character, C. P. and K. P. should be adjusted.

Pathology.—The structure changes in all forms of dermatitis are that of simple inflammation, viz., hyperaemia, swelling, some-

times suppuration and desquamation varying in degree and extent of the skin involved.

Symptoms.—I. **Dermatitis exfoliativa** is a form involving the whole cutaneous surface and is characterized by redness, dryness and abundant desquamation. It begins with erythematous patches in the folds of the skin. These gradually enlarge until by the third day the entire surface has become red. In rare cases one month may he required before its heighth is reached. The palms and soles are the last parts to be involved. The skin is dry and bright red at first but during the second week the redness lessens, the skin becomes scaly and desquamation begins. This desquamation is extremely abundant in some instances, the epidermis falling off in large sheets. In other instances the body may be covered with large thin scales having upturned edges. The hair and nails are sometimes shed. The mucous membranes may become inflamed and have increased secretion. At the onset of the disease there may be high fever of the continued type but later in the disease the fever becomes intermittent, being present at night only. There are usually some sensory disturbances consisting of chilliness, stinging, tingling, burning, tenderness and pain, but no itching. The secretion of the sweat and sebum is suppressed. The condition may become chronic with great emaciation and be fatal.

II. When this disease appears in the new born it is called **dermatitis exfoliativa neonatorum.** In this class of cases there is no fever or digestive disturbance, it beginning with erythema around the mouth, which soon spreads to the trunk and extremities. Desquamation is profuse, occurring in large folds and leaves, the skin is dry and sensitive. This form usually starts between the second and fifth week of life and lasts seven or eight days. The prognosis is very favorable.

III. **Dermatitis herpetiformis** is a form of the disease in which there is a diffuse herpetic eruption. It begins with prodromal symptoms of malaise, constipation, sensations of heat and cold and slight fever. Itching of the skin precedes the outbreak of the eruption, which may be localized or diffuse. The eruption may be erythematous, vesicular, papular, bullous, pus-

tular or a combination of two or more of these, multiformity being characteristic. The lesions may be bright red at first but darken with age. When vesicles predominate they are found in clusters, each being the size of a pinhead or pea. When several of these vesicles coalesce they form a bleb or bulla, which may vary in size and shape. The vesicles do not rupture unless injured, this being one of the important distinguishing symptoms from vesicular eczema. When vesicles predominate the disease is called **dermatitis herpetiformis vesiculosa** and is regarded as being the most common variety. When bulla predominate it is spoken of the **bullous** variety. When papules predominate it is spoken of as the **papular** variety, and when pustules predominate it is called the **pustular** variety.

It is well to remember that erythematous patches with grouped vesicles, papules, pustules and bulla, intensely pruritic and numerous excoriations always point toward this disease.

This form of dermatitis differs from vesicular eczema by having larger vessels which are grouped in clusters upon a red base and which do not rupture spontaneously leaving a moist surface. Itching is more intense and the duration of the vesicles is much longer.

IV. **Dermatitis from the Roentgen Ray** is commonly called x-ray burn. It appears weeks or days after the exposure in the form of an erythematous patch having slight swelling. Mild cases may undergo no further change and recover. Severe cases have a deep seated severe pain with numerous vesicles or bulla upon the red patch which becomes purple. The center of the patch becomes moist, ulcerated and does not heal readily. The hair and nails will be temporarily shed and there may be areas of chloasma. The history of the case would show exposure to the x-ray and the patient may have scars from previously healed burns.

V. **Dermatitis venenata** is a form of the disease resulting from the introduction of poison into the deep layers of the skin. The most common form is called **rhus poisoning** and embraces the eruptions encountered from poison sumach, poison ivy and poison oak. The mildest cases show a marked erythema

with intense itching but the ordinary case is accompanied by considerable swelling, which may occur in the form of a wheal with burning pain. Within a few hours papules, vesicles or bulla develop. The swelling may be intense so that when affecting the face the eyes may be completely closed. The vesicles are usually present in a countless multitude and their contents may either dry up or be discharged upon the skin, where it drys and forms crusts. The redness and swelling slowly disappear as crusts form and the skin soon becomes normal. There is but a small percentage of people which are injured by the poison from these plants.

Dermatitis Venenata differs from eczema in that it more often affects all surfaces of the fingers, hands and face; by having greater swelling, more acute onset, greater number of crowded vesicles and its occasional ocurrence in streaks which is suggestive of striking against the plant.

VI. Dermatitis calorica is the name applied to inflammation of the skin produced by burns or frost bite. When due to the former it may be the effect of natural heat and is called sunburn, the damage to the skin being slight, but when burns are more severe they are characterized by not only hyperemia but also large vesicles or bulla, and when there is complete destruction of the skin as by scalding it is followed by gangrene and sloughing. Burns that involve one half of the cutaneous surface are generally fatal. When dermatitis results from frostbite it may be slight as is commonly seen in the condition called chilblain, which is accompanied by a sensation of heat, smarting or burning, all of which are aggravated by dampness and cold. In the more severe cases the tissue may be destroyed and slough as the result of gangrene. The structural changes due to extreme cold being the same as those due to extreme heat.

Dermatitis is said to be traumatic when due to injury and is spoken of as medicamentosa when due to drugs. The modus operandi of each differ in different cases so that no given set of symptoms could give a definite picture of any case. The history of these cases is usually sufficient to arrive at a correct conclusion.

Eczema

Definition.—Eczema is an inflammation of the skin characterized by any or all of its results, at once or in succession, such as erythema, papules, vesicles or pustules, terminating in a serous discharge with the formation of crusts, or in desquamation. It is also called salt rheum, tetter and scall.

Adjustment.—K. P. Occasionally Li. P. or Spl. P.

Pathology.—The structural changes begin with hyperemia and swelling of the skin from which there is a serous exudate. If the exudate is profuse and the skin resistant vesicles form; if the vesicles contain cells they undergo suppuration forming pus, which transforms the vesicle into a pustule; if the serous exudate is scanty and does not break thru the epidermis, dry scales form, constituting the condition called eczema squamosum; if upon removal of the crusts the corium is exposed it is called eczema rubrum; and in the chronic form in which the skin becomes thickened and hardened from the over growth of connective tissue it is called eczema sclerosum.

Symptoms.—Eczema is the most common of all skin diseases and its six most prominent symptoms are redness, itching, infiltration, tendency to moisture, crusting or scaling and cracking of the skin. Four or more of the above symptoms are found in all cases and as a rule the disease tends to form in patches which may be localized or general. When general it is called eczema universalis. No form is clear cut and unchangeable but gradually merge from one stage into another constituting the various forms.

Eczema erythematosum begins as an enlarging macule, having an irregular outline, red in color and situated upon the face. It may spread to cover the entire face or several similar spots may form which finally unite. Swelling which may be slight or very great is always present. There is intense itching and burning together with other sensory disturbances, the most annoying of which is a feeling of stiffness. In the beginning the macule is bright red but it darkens with age. This type of eczema is always dry, except when two surfaces come in contact where due to the irritation they are kept moist. In the course of a few

days or weeks the affected area becomes covered with dry scales, from which it obtains the name eczema squamosum.

Eczema papulosum begins with round pinhead sized papules which are red in color and very numerous. They may be discrete or confluent and intermingled with vesicles. Itching and burning is very intense and the skin may be covered with excoriations due to the scratching. When the vesicles break the discharged serums dry upon the skin, forming crusts which are usually yellowish or brown in color except when blood is intermingled with the serum, when they will be black in color. The extensor surface of the arms and legs is the favorite location.

Eczema vesiculosum begins with burning pain, redness and swelling which is followed by the development of a multitude of minute vesicles, which may be discrete or confluent. The vesicles rupture of their own accord causing the moist surface which upon drying forms a yellowish crust. New crops of vesicles form and undergo similar changes until ultimately the affected portion of the skin is completely covered by the crust. Upon removal of the crust the corium which is a bright red color is exposed and the condition is then referred to as eczema rubrum. This is the most common of all forms of eczema, both in children and adults. It has no favorite location except in children, where it is most commonly found upon the cheeks.

Eczema pustulosum begins in the same manner as the vesicular form with numerous small vesicles which are transformed into pustules. The pustules break down rapidly, forming greenish crusts. These lesions occur in patches which may or may not coalesce. Itching is present to a less extent than in the previous forms of eczema. It is common upon the face and scalp of children.

Eczema squamosum is a clinical variety often constituting the terminal stage of erythematous, papular, vesicular and pustular eczema. It is characterized by flat, thin, papery like scales. The skin may be thickened and occasionally fissured. It is usually chronic and may remain in this stage indefinitely.

Eczema rubrum is also a clinical variety which results from vesicular and pustular eczema. At some time during its

development the skin is covered with a thick yellowish-green crust, which upon removal exposes a bright red tender skin that bleeds easily. This red surface may again become covered with a crust as before. When the skin is covered with moisture in this stage it is often called weeping eczema. When the surface becomes dry it is soon covered with thin scales constituting squamous eczema.

Infantile eczema is most commonly the pustular form and in its earlier stages it is often called milk crust. It begins with a crust formed of sebrum, epithelial debris and pus. When the crust is raised the scalp is found to be red, thickened and moist with a purulent secretion. There are moist spots behind the ears with a red eruption. It next involves the skin of the face which begins as vesicular eczema with much moisture and crusting. The crusts are of irregular thickness and beneath them the skin is very red. A narrow margin of skin around the eyes, and mouth is free from the eruption.

Seborrheal eczema is a form of eczema occurring in the scalp of adults and constitutes one of the forms of dandruff. The onset is insidious for months or years with scaliness, itching and gradual loss of hair. Scales mix with the sebum to form fatty crusts which are easily removed. It may gradually spread to other parts of the body, but is usually confined to the head. When eczema is limited to any one part of the body, it is often given a name indicating the part affected, such as eczema capitis when on the scalp; eczema palpebrarum when affecting the eyelids; eczema manuum when affecting the hands, or eczema intertrigo when occurring in folds of the skin where two surfaces come in contact. These names do not suggest a difference in type of the disease present but merely indicates the location.

Elephantiasis

Definition.—It is a hyperplasia of the skin and subcutaneous connective tissue in which there is obstruction of the lymphatics and is characterized by enormous enlargement of

the part affected. It is also called Barbadoes leg, tropical big leg and lymphodema.

Pathology. — This is produced by obstruction of the lymphatics from chronic inflammation, growths, thrombi or inflammatory swelling and is attended by congestion, swelling and proliferation of connective tissue, in muscles, vessels, nerves, lymphatics and skin.

Adjustment.—Local and K. P.

Symptoms.—This may begin suddenly with fever or gradually with an erysipelas like swelling. The rise in temperature is called elephantoid fever and is occompanied with lumbar pain, nausea, vomiting and sweating. Most sporadic cases begin without fever but with signs of local inflammation in the deep layers of the skin, veins or lymphatics as is evidenced by the redness and swelling. There is a milky exudate that exudes from the skin and may be accompanied by eruption of vesicles containing lymph. In time the acute symptoms will disappear but the leg does not return to its normal size. In the early stages there is pitting of the skin or pressure. There may be one or more recurrent attacks with an increase in the enlargement during each attack. Finally the part attains enormous size. Its contour is lost, its surface smooth and shiny, folds of the skin obliterated and its color becomes dark. Some of the lymphatics may become varicose and may rupture, discharging a clear or milky fluid which appears to sap the patient's strength. Odor of sweat and decomposing fluids is very offensive. The most common location is the lower extremities, one or both, but also affects the genitals, arms, face, ears, breast and tongue. The lymphatic glands may become enlarged. Eczema with intense itching may develop. The disease is rarely fatal.

Epithelioma

Definition.—A chronic progressive malignant growth of the skin or mucous membrane characterized by the formation of ulcers with raised hard waxy edges recurring after removal.

Adjustment.—Local and K. P.

Pathology.—It has a fibrous stroma containing blood vessels

and lymphatics upon which are situated numerous epithelial cells which also infiltrate the deep layers of the corium. This growth undergoes degeneration of a malignant character and may be the seat of much ulceration which progressively destroys the tissue in which the cancer is situated.

Symptoms.—Epithelioma often occurs upon old scars, molds, warts, fissures, pimples, scaly spots or insidiously, and most often occurs upon the face, especially the lips, eyelids and nose. The enlargement may begin in the shape of one or more small hard, red, waxy looking papules with or without itching and pain. After a time the surface of the growth becomes the site of an ulcer which gradually deepens through the skin into the muscles and bones.

The epitheliomatous ulcer is irregular in shape with raised waxy like edges. The floor of the ulcer is uneven and bleeds easily. it is covered with a brownish crust or a purulent secretion. The neighboring lymphatics are enlarged early in the disease and ultimately may break down and ulcerate. Epithelioma may occur singly or in groups. They usually attain a larger size than the visceral carcinoma. When the cancer spreads from a narrow base it is spoken of as the cauliflower variety. In this variety there are deep fissures which give off an offensive discharge. The principal subjective symptom is pain which may be intermittant or continuous and varies in severity. The duration varies with the degree of malignancy. Over fifty per cent of this form of cancer grow upon the lower lip.

Rodent ulcer is classed as a form of epithelioma of low malignancy. Pathologically there is no special distinction between rodent ulcer and carcinoma except that in the ulcer the growth of cells is greater beneath the skin than above and the direction in which it extends is always perpendicular to the skin. It most commonly occurs after middle life and upon the upper half of the face, especially at the root of the nostril and side of the nose. The ulcer is round in shape, from one to three inches across, progresses verly slowly, is painless or nearly so and has gnawed like edges. It may exist for years before the terminal stage is reached which is characterized by emaciation, weakness and cachexia.

Erythema Roseola

Definition.—A form of primary erythema most common in children characterized by irregular shaped and sized macules of a few hours duration.

Adjustment.—S. P. of lumbar, with K. P.

Symptoms.—This form of erythema is most common in children but affects people in all ages. Nearly all cases follow or arise as a result of digestive disturbances. It begins with a rise of temperature, coated tongue, restlessness and anorexia. Fever is accompanied by red blotches of various size and shape which may be localized or general and which lasts but a few hours to one day. The condition may last several days with new blotches appearing upon other parts of the body. The short duration of the blotches with digestive symptoms makes the recognition easy.

Erythema Multiform

Definition.—An inflammatory disease of the skin characterized by symmetric red macules, papules and vesicles of various shape and size running an acute course.

Adjustment.—C. P. and K. P.

Symptoms.—This is believed to be an angioneurotic disturbance produced by some toxic irritant in the circulation, a condition resulting from poor elimination. The only structural changes occurring are those mentioned in the definition. The disease begins with feverishness, malaise, aching pains and anorexia, which are followed by sudden eruptions of macules, papules, vesicles and sometimes blebs. No part of the body is exempt from this eruption but it is most common on the extensor surface of the extremities. The eruption is attended by intense itching and burning pain which are constant. One characteristic feature of the disease is that always two or more forms of eruption are present. Occasionally the eruption is confined to the skin over the joints around which there has been rheumatoid pains. The fever subsides upon the appearance of the eruption. The duration is from one to four weeks and the prognosis is always favorable.

It is most common in spring and autumn and is often described according to the eruption which predominates. When papules predominate it is called erythema papulatum. When the papules enlarge to the size of tubercles it is called erythema tuberculatum. If the lesions continue to enlarge the center becomes depressed, forming a ring-shaped figure and is called erythema circinatum. If several such rings form by successive exudation it is called erythema iris.

Erythema Nodosum

Definition.—An acute inflammatory condition involving all elements of the skin characterized by strictly defined rounded or oval tender swellings most commonly met with on the shins in young women.

Adjustment.—K. P. and lower lumbar.

Pathology.—The changes are those of acute inflammation of all tissues of the skin with dilated lymphatics, congested vessels and small cell exudation.

Symptoms.—This begins with malaise, fever and unusually severe pain in the legs and is soon followed by the appearance of nodular red swellings varying in size from that of a small nut to an egg upon the anterior surface of the tibia. They are firm under palpation and extremely tender. Upon undergoing absorption they look like a bruised spot. They may vary in number from one to twelve and usually last from two to four weeks. The prognosis is very favorable.

Favus

Definition.—A disease of the skin characterized by discrete or confluent, circular, pale, sulphur-yellow or asbestos-like grayish crusts.

Adjustment.—K. P. is the most important adjustment but other adjustments to increase the elimination may be made.

Symptoms.—This begins as an erythematous patch or as a group of small vesicles, smaller than those found in ordinary ringworm, upon the scalp or non-hairy parts of the skin. They undergo rapid changes forming yellow crusts around the hairs.

The hair becomes dull and lusterless and falls out in places, leaving irregular bald spots of red skin. The crusts have rounded edges, are cup shaped and sulphur-yellow in color. One or more hairs grow out of the center of the crust, which is about the size of a split pea. As the crusts become aged they turn grayish in color and have a peculiar odor of mice or old straw. These crusts may remain discrete or coalesce and are always situated around the hair follicles. The edges of the crust finally become detached and raised. When removed they leave a moist, red surface. They are firm to the touch and crumble between the fingers like mortar. The hair is often dry, split and easily pulled out with its roots. Itching is the only subjective symptom. Pustulation does not belong to this disease but may occur as a complication. The cup shaped, sulphur-yellow crusts are pathognomonic of favus and is also the most important differential symptom from simulating diseases. This is also called **honeycomb, ringworm** and **porrigo.**

Fibroma

Definition.—Fibroma is a soft tumor of the skin composed of a hyperplasia of the cutaneous and subcutaneous connective tissue.

Adjustment.—Local in combination with K. P.

Symptoms.—Fibroma most commonly are found upon the trunk. They may be pink, brownish or normal in color, and round, flat or pedunculated in shape. They are always raised above the surface of the skin and are of a soft consistence upon palpation. They may have small tufts of hair growing from them or they may be perfectly smooth. They vary in number from one to hundreds but when numerous are found distributed in many parts of the body. They have no subjective symptoms and cause the patient no inconvenience unless they attain enormous size. As a rule they are the size of a cherry or even as large as a walnut, but may become as large as a child's head. They always grow slowly and after attaining a certain size remain stationary. When they are pedunculated and hang down like polypi are called **fibroma pendulum.** They differ from lipoma in not being lobu-

lated and in projecting above the level of the skin. Lipoma is encapsulated beneath the skin.

Furunculus

Definition.—An acute suppurative inflammation around a cutaneous gland or follicle, characterized by one or more painful formations terminating in necrosis.

Adjustment.—Local and K. P.

Pathology.—The inflammation begins in the corium, in or around the hair follicle or glands of the skin with hyperemia, swelling, induration, suppuration and discharge of pus. After the pus is discharged granular tissue forms, leaving a scar.

Symptoms.—Boils most commonly appear upon the neck, face, forearms, buttocks and legs. They begin as a small, round, red painful spot which progressively enlarges until the fourth or fifth day, when it develops into a papule the size of a pea to that of a quarter of a dollar. This papule is raised above the level of the skin, is dark red in color at the center and light red at its edge. There is great tenderness with some throbbing pain. In a few days the center becomes yellow, indicating the formation of pus. Upon perforation of the skin, bloody pus and a core of a greenish color is discharged, leaving a cavity which is later filled by scar tissue. If suppuration does not occur the papule does not point and is called a **blind boil.** Boils may occur singly or in great numbers. When numerous the patient is said to have **furunculosis** and has fever, chills, sweats and enlarged lymphatics. Boils affecting the sweat glands are less common, are smaller in size and are often of the blind variety.

Herpes

Definition.—An acute inflammation of the skin characterized by an eruption of one or more groups of vesicles situated upon a red base.

Adjustment.—Since herpes is usually symptomatic the adjustment should be made locally, depending upon the causative disease.

Symptoms.—Herpes facialis is the most common form and is so named when occurring upon any part of the face. It is commonly called cold sore, fever blister, herpes febrilis and herpes labialis. The patient first notices a burning, itching or stinging sensation in the affected part which is also erythematous. This erythematous patch is soon covered with a multitude of minute vesicles. There may be more than one such patch but they are always few in number while the vesicles upon the patch are numerous. In a few days the vesicles dry up and form a crust which is soon shed without leaving a scar. Herpes may form upon the lips, around the nose or eyelids. Herpes is symptomatic of respiratory catarrh, fever or gastric disorders.

Herpes progenitalis is that form occurring upon the genitals. They begin with a similar burning, itching and stinging with a reddened base upon which soon appears numerous small vesicles. These vesicles are always isolated and not confluent and vary from eight to thirty-five in number. There may be a swelling of the groin glands. About eighty per cent of herpes progenitalis is found in women during menstruation and lasts from eight to ten days.

Ichthyosis

Definition.—A localized or general disease of the skin characterized by dryness, harshness, scaling and sometimes by warty looking growths.

Adjustment.—K. P.

Symptoms.—Xeroderma is the simplest form of the disease. It is characterized by dryness, harshness, scaliness and grayness of the skin with pronounced lines running across the trunk or extremities. This may be limited to the extensor surfaces of the extremities or may become general over the entire body. The secretion of sweat and sebum is suppressed, hence the dryness.

Ichthyosis simplex is a more severe form in which the skin is dry, scaly and divided into small squares or diamond shaped figures. It is more often localized upon the extensor surfaces of the extremities. The face, palms, soles and scalp are usually not affected, while the elbows and knees are most often

involved. The skin is thrown into folds between which are small superficial fissures, giving it the scaly appearance from which it obtains the name fish-skin disease. The scaly patches have upturned edges and depressed centers, the hair is dry, the nails may be pitted and the patient is very sensitive to the cold. These cases are aggravated by the cold during cold weather and are less severe during warm weather.

Ichthyosis hystrix is a very rare form which is always localized and usually unilateral. It often follows the course of distribution of a nerve which would indicate the adjustment of the local vertemere. It is characterized by horny papillary growths, pin point in size which may be massed together into elevated, warty-like plates of dark green color and transversed by deep lines or fissures, that may be arranged into parallel lines. This form of ichthyosis is sometimes called neurotic papilloma.

Ichthyosis congenita is also called keratosis and keratoma follicularis. The condition is present at birth and is a very rare occurrence. The skin is covered with fatty like plates or scales which are cracked in all directions. The deep fissures which exist in the skin extend down to the corium. The lips and eyelids are often immovable, the feet may be deformed and the skin is yellow or gray in color. Most of these cases are born dead or soon die. The prognosis under adjustments is uncertain.

Impetigo Simplex

Definition.—A disease of the skin characterized by an eruption of pustules that are pustules from the beginning.

Adjustment.—C. P. and K. P.

Symptoms.—The onset is with malaise, anorexia, constipation and feverishness. The eruption consists of one to a dozen pustules that are pustules from the beginning. These pustules are about the size of a split pea, they have thick walls, are not fully distended, have a very small areolat without induration, have no central depression, do not rupture and are yellow in color. They usually occur upon the face, hands and feet and are much more common in children. There is no burning or itching, it is

not contagious and leaves no scar or pigmentation. The duration is a few weeks and the prognosis is favorable.

Impetigo Contagiosa

Definition.—An acute inflammatory disease of the skin, occurring upon exposed parts as a rule and characterized by vesicopustules or bulla.

Adjustment.—C. P. and K. P.

Symptoms.—The onset is with slight febrile disturbances and is followed by an eruption of vesicles and pustules occurring in successive crops. The lesions vary in size but average that of a split pea and are at first surrounded by a red areola or halo which soon fades. The pustule gradually increases in size and sometimes assumes an annular shape. They are not fully distended, but flaccid and resemble a burn. In a few days the contents dry up, forming a crust with upturned edges. Rare cases have large bulla, several inches long and of irregular shape, which become purulent. These bulla are formed by two or more vesicles coalescing. They have depressed centers and last much longer than the pustules. Impetigo contagiosa most commonly affects the chin and hands of children; it has no definite course and is often epidemic.

Differential Symptoms.—Impetigo differs from pustular eczema in that eczema has intense itching, its pustules soon break down, forming dark green crusts and the pustules in eczema are smaller and much more numerous.

It differs from small pox by the absence of high fever and backache, absence of papules and progressive changes, absence of pitting, absence of definite duration and in that its vesicopustules are localized.

It differs from pemphigus in that the latter occurs in adults; is not contagious; is more general in its distribution; is very chronic in its course; tends to return from year to year; its bulla are fully distended; has no areola and the prognosis of pemphigus is less favorable.

Impetigo Herpetiformis

Definition.—A very rare form of impetigo characterized by grouped pustules in localized areas of the skin.

Adjustment.—C. P. and K. P.

Symptoms.—This form of impetigo is found almost exclusively in women. It begins with an eruption of pustules which are grouped in small patches upon the breasts, axilla and groin. These pustules are pinhead in size and upon drying form brown crusts, around which new pustules form, thus enlarging the surface affected. Within three or four months the whole surface of the skin is swollen, red, hot and covered with brown crusts showing torn and excoriated places. There is a continuous remittent fever from the beginning and each outbreak of pustules is marked by severe chills and high fever. Emaciation and weakness progressively increase. The prognosis is uncertain as few if any cases have been adjusted.

Keloid

Definition.—Keloid, which is also called cheloid, is a connective tissue growth of the skin occurring most commonly upon the chest; its characteristics being hardness, pink color and prolongations extending in all directions.

Adjustment.—Local and K. P.

Symptoms.—Keloid is most common after puberty in the negro race and consists of a fibrous growth of dense consistency resembling scar tissue. Most cases have a history of injuries to the skin which would indicate that traumatism is a predisposing cause. These growths may be one or more in number. They are firm, pink, freely movable and oval or elongated with claw like processes given off which extend in all directions. Keloids assume all sort of shapes and sizes. The surface may be smooth or nodular. Pain and pruritus may be present. The favorite location is upon the upper half of the sternum although many cases involve the face and extreme cases may affect the greater part of the body. It runs a very slow course and is not fatal.

Leprosy

Definition.—A chronic disease of slow progress characterized by anesthesia, redness, tubercles, atrophies and deformities.

Adjustment.—Local and K. P.

Pathology.—In the tubercular type nodules form upon the skin, nerves and blood vessels in localized regions and undergo a slow breaking down with ulceration and ultimate destruction of the parts of the body affected.

In the anesthetic type the principal change is a slow and gradual atrophy of the skin and its underlying structure including the arteries and arterioles causing their obstruction and dry gangrene as a result.

Symptoms.—Tubercular leprosy begins insidiously with prodromes of ill health, diarrhoea, chills, profuse sweats and remittent fever. This fever may precede the other prodromal symptoms and also recurs with each new outbreak of tubercles. After a time a red eruption appears upon the face, ears, arms or legs. The eruption consists of oval, hyperesthetic, purplish spots one or more inches in diameter which disappears with the fever and recurs upon the return of the fever. Three to six months after the eruption the tubercles appear as pink, pinhead sized papules which may enlarge to the size of an egg. These tubercles are anesthetic and often coalesce making the parts affected have a nodular appearance. The tubercles usually appear upon the lips, eyebrows, ears and digits, but never in the palms, soles or scalp. The tubercles may break down, forming leprous ulcers which slough and have a peculiar odor. As a result of this ulceration there is amputation of the digits or even extremities, or they may leave large scars. All changes are very slow so that before there is much sloughing the face is deformed and studded with tubercles, the eyebrows hairless and thick, the eyes sunken, the ears hang down, the lips protrude, the forearms enlarged and knobby, the hands deformed and the lymphatics swollen. Sight and hearing are usually lost, the voice is hoarse and offensive discharges are given off from the nose and throat. There is always sterility. The average duration is eight

years. About forty per cent of the cases die from the disease, forty per cent from kidney trouble and the rest from anemia.

Anesthetic leprosy begins with shooting pains which extend down the principal nerve trunks of the extremities affected. General hyperaesthesia and itching may occur upon different parts of the skin. Frequently there is a vesicular or bullous eruption upon the fingers or toes which becomes purulent and upon breaking leaves an anaesthetic scar. Malaise, digestive disturbances and extreme muscular weakness may also exist in the prodromal stage.

After several months of prodromal symptoms a macular eruption appears upon the face, lips, extremities and back. The macules are oval in shape, pale yellow or brown in color, enlarged around the edge and clear up in the center. They are hyperaesthetic at first but soon become devoid of sensation. The large nerve trunks harden and become like whipcords under palpation. Areas of numbness may exist independently of the macules and in old cases the entire skin becomes anesthetic. The muscles of the hands and feet undergo a marked atrophy. Permanent flexion of the last phalanges of the hand gives a characteristic appearance in practically all cases of this type. Following the macules and anesthesia of the skin it undergoes atrophy, leaving it a very pronounced white color and toward the later stages most of the body may have assumed this color. The hair is lost, the skin is wrinkled, the nails drop off and digits or even extremities may be amputated due to dry gangrene. Habetude and insomnia are present in most all cases. Many cases present symptoms of both types and are spoken of as mixed forms but named according to the predominating symptoms. The average duration of this form is fifteen years and the prognosis is uncertain.

Leucoderma

Definition.—Leucoderma or leucopathia is an acquired loss of the pigment of the skin and is usually accompanied by hyperpigmentation of other adjacent parts.

Adjustment.—When primary it is atrophic neurosis of the

skin due to impingement upon the nutritive nerve supplying the affected part, therefore is caused by a local subluxation. Most other cases are secondary or symptomatic of other diseases, such as neuraesthenia, syphilis, Addison's disease and morphea. When symptomatic the adjustment should be made for the disease of which it is symptomatic.

Symptoms.—It usually begins upon the neck, face or hands as a small white spot devoid of normal pigment. The spots vary in shape and may be as small as a dime or so large that they cover the major portion of the body. They develop slowly and may become stationary at any time. The adjacent skin may become darker than normal due to the deposit of extra pigment. As a rule the general health is not affected and sensation remains normal. When the scalp is involved the hair turns white. The condition is more evident in the summer months because of the tanning of the normal skin which gives to it greater contrast.

Lichen Planus

Definition.—A chronic and inflammatory disease of the skin characterized by small, flat, angular, umbilicated, red papules with intense itching.

Adjustment.—Local with K. P.

Symptoms.—The structural changes are those of inflammation occurring in the corium around the sweat glands and papillae. It begins with an eruption of small papules of a purple or crimson-red color one-sixteenth to one-sixth of an inch in diameter. They have small depressions in their center with a smooth and shiny surface. When fully developed the papules become gray with red borders and may remain discrete or arrange themselves into rows. When forming patches they become scaly and have no definite shape but are lilac colored. They most commonly occur upon the flexor surface of the extremities. The general health is good unless interfered with by loss of sleep from the intense itching.

Lichen Ruber Acuminatus

Definition.—It is a chronic progressive disease of the skin

marked by an eruption of small red conical papules tipped with a scale.

Adjustment.—K. P.

Symptoms.—This disease begins as a discrete eruption of millet seed sized papules which have slight itching. The papules are red in color, conical in shape, hard in consistency and each is tipped with a scale. They first appear upon the flexor surface of the extremities and trunk. New papules form enlarging the patch or area until most of the body is involved. The single papules however never increase in size. Later in the disease the papules may grow so close together that they form a continuous red infiltrated patch covered with scales. This gives to the skin a stiffness which interferes with movements of the joints. There is intense itching and disturbances of nutrition which is indicated by marasmus, uneven brittle nails and great prostration.

Two-thirds of all cases are found in adult males.

Lupus Erythematosus

Definition.—A chronic superficial growth of the skin characterized by sharply defined localized red patches having gray scales.

Adjustment.—Local in the upper cervical region and K. P.

Symptoms.—This form of lupus begins with pinhead sized scaly red spots, the border of which may be raised. They are situated upon the nose, cheeks, ears or scalp and grow slowly, but finally coalesce forming large patches, having well defined raised edges. The patches are covered with gray scales beneath which it is red or pink in color. A mild itching and burning may be present but often there are no sensory disturbances. Usually the eruption is symmetrical and when situated upon the nose and cheeks gives to the face a peculiar butterfly appearance, the ridge of the nose representing the back of the butterfly and the cheeks its wings. When occurring upon the scalp it leads to permanent loss of the hair. The disease may become stationary after a time and the general health may be unaffected.

Lupus Vulgaris

Definition.—A localized tuberculosis of the skin.

Adjustment.—Local and K. P.

Symptoms.—The structural changes are those of tuberculosis when occurring in other parts of the body. This usually begins upon the nose and cheek as one or more deep seated dull red spots consisting of small papules which enlarge and coalesce. They are of an apple-jelly color and soon become scaly. They are not symmetrical, varying in size and shape. These papules are always elevated above the level of the skin. The center of the patch is much lower than the border and eventually is atrophic. In rare instances the patches entirely disappear leaving a fine smooth scar but more often they break down and form ulcers which are round in shape with easily bleeding floors and a moderate amount of purulent secretion that dries into a crust. There is always a dense growth of scar tissue which causes the parts affected to atrophy and greatly diminish in size. There may be signs of the disease in other parts of the body.

Lymphangioma

Definition.—A benign growth of the skin involving the superficial lymphatics and is also called lymphangiectasis.

Adjustment.—Local and K. P.

Pathology.—The superficial lymphatics become dilated forming ampullary swellings at the surface of the skin which may remain discrete or become fused into masses. These swellings contain lymph which if drained soon fills again.

Symptoms.—This begins as a thick walled vesicle several of which are crowded together in irregular shaped groups giving to the skin a warty appearance. Each vesicle varies from the size of a pin head to that of a half dollar and is always flat. They are usually pink in color but may contain a straw colored serum or blood which would cause a change in the color. They spread slowly from the periphery, with much thickening of the skin. Upon palpation they are firm and give to the skin a feeling of stiffness. Large areas of the skin may be involved by the

tumorous mass which is about one-fourth inch in thickness. There is little or no pain attending this affection. Males are more often affected than females and as a rule the disease begins early in life.

Miliaria

Definition.—An incoordination of the sweat glands characterized by a discrete eruption of papules or vesicles.

Adjustment.—K. P. should always be adjusted. If the condition is symptomatic the adjustment would depend upon the causative disease.

Symptoms.—Miliaria is divided into two main classes known as sudamina and prickly heat.

Sudamina occurs during the course of fevers and consists of numerous, closely set, pearly vesicles without any inflammation. These vesicles dry up and disappear in a few days without any subjective symptoms. They are due to a closure of the sweat pores and retention of sweat under the skin.

Prickly heat is also called lichen tropicus and occurs during warm weather or when warmly clothed. It is characterized by an eruption of pin point papules upon a reddened skin and attended by itching, prickling and burning which is increased by heat and moisture. These papules occur in great numbers, are closely set and may be localized or general in their distribution. This is most commonly found in children and obese individuals. It is due to a congestion around the sweat glands.

Morphea

Definition.—A chronic circumscribed hardening of the skin and is also called Addison's keloid.

Adjustment.—Local and K. P.

Symptoms.—This begins as a red or lilac colored macule which enlarges at the periphery and becomes pale and hard in the center. It soon forms an irregular or band like patch which becomes yellow, pink or brown in color. The skin over the patch is smooth but when pinched between the fingers feels hard and

leather like. There may be one or several such patches, some of them being level with the skin and some being raised. Sensation is always retained in the affected area. The condition most commonly manifests itself upon the trunk, especially the breasts and on parts of the face supplied by the fifth cranial nerve. The disease has no definite course, but usually terminates by suddenly disappearing, undergoing ulceration or leaving patches of leucoderma and chloasma.

Nevus Pigmentosus

Definition.—A congenital, circumscribed, hyperpigmentation of the skin and is also called the pigmentary mole and mother's mark.

Symptoms.—This may consist of pigment only and not raised above the level of the skin, and when such is the case it is called **nevus spilus.** There may be hypertrophy of connective tissue, causing it to be raised above the surface, giving it a warty appearance and is then called **nevus verrucosus.** If hair grows from either form it is called **nevus pilosus.** This form of nevus may be unilateral or bilateral, consisting of one or hundreds of small or large patches of a brown color. They may be located on any part of the body but are especially common on the face, neck and back. When hair grows from the nevus it is coarser and darker than elsewhere. There are no subjective symptoms. The condition is not altered in any respect by adjustments.

Nevus Vascularis

Definition.—A reddish spot or area due to an increase in the number and size of the cutaneous capillaries.

Symptoms.—They appear at birth or during the first month of life and are usually single but may be multiple. They vary in size, shape and color, but all become pale upon pressure. They may be but a small pinhead spot under the skin or a large erectile, pulsating tumor. They may be pink, light red, dark red or purple in color. When situated upon the face they become more pro-

nounced upon crying, coughing or straining. They sometimes grow in proportion to the child's growth, sometimes remain stationary and occasionally disappear. They are most common on the face and head and are also called the port-wine mark.

Pemphigus

Definition.—An inflammatory disease of the skin characterized by the development of successive crops of blebs varying in size from a pea to an egg.

Pathology.—There is an inflammation of the papillary layer of the skin with a sudden effusion of serum between its layers causing the same to be raised and filled with a fluid which becomes puriform with age.

Adjustment.—K. P.

Symptoms.—**Pemphigus vulgaris** is the common form and may begin acutely with fever or more slowly without fever. The first symptom indicating the nature of the disease is the appearance of successive crops of blebs the size of a pea to that of an egg, containing a clear fluid. As the blebs become older their contents become cloudy and purulent. The blebs occur abruptly without any sign of inflammation and have a definite line of demarcation. In a day or two they are surrounded by a red halo and gradually dry up in from three to ten days leaving a crust and are followed by the appearance of a new crop of similar blebs. This eruption may occur upon any part of the body but shows some preference for the lower part of the face, trunk and limbs. Itching and burning may be present to a slight degree. If the blebs are large and numerous they coalesce, rupture and leave large ulcers which greatly impair the patient's health. The condition is then called pemphigus malignus.

Pemphigus foliaceus differs from the simple type in that the blebs are flaccid, being only partially filled with serum. They always rupture before maturing and the discharged fluid hardens into white flakes which fall off leaving the skin red and excoriated. In time the skin looks as if scalded, being red, stiff and extremely painful. After a duration of several months or years

the patient passes into the typhoid status and death results from asthenia.

Pityriasis Rosea

Definition.—An acute self-limited disease of the skin characterized by red macules that enlarge into dry, scaly, oval shaped patches.

Adjustment.—K. P.

Symptoms.—This incoordination is most common in children and young adults. It begins with an eruption of slightly elevated macules or papules on the upper part of the chest or upon the anterior part of the abdomen on a level with the waist line. This eruption spreads peripherally into oval patches whose borders become higher than their centers. After the patch becomes one half inch in diameter, the center becomes yellow and scaly leaving a pale red border. Later the center scales off leaving red rings which are scaly. Two or more of the rings may coalesce forming gyrate figures, which finally disappear. All parts of the body except the hands, feet and face may be affected and all stages of development of the disease is found in a well formed case. As a rule there is little or no sensory disturbance, but slight itching may be present when warm.

Pityriasis simplex is a form of scaling of the skin which is especially noticeable on the scalp where it is known as dry dandruff. The scales are white in color and become mixed with the hair. The hair is dry and the head itches, especially when warm. Alopecia follows after several years duration.

Pompholyx

Definition.—An inflammatory disease of the skin of the palms and soles having small vesicles which dry up and scale off.

Adjustment.—Local and K. P.

Pathology.—This is an inflammatory condition of the skin with vesicles containing a clear serum, not sweat, which is neutral or alkaline in reaction and mixed with albumin and fibrin.

Symptoms.—The onset is with burning and itching of the

palms and soles or the sides of the fingers and toes. In a few hours small, clear vesicles appear, usually grouped upon a red base and may coalesce to form larger ones. They do not rupture but dry up in a few days. Their covers fall off leaving small dry red spots. If the vesicles are numerous all of the skin may peel off from the affected parts. In the slight cases the palms and soles may be dotted with small red spots having ragged edges. The back of the hands and feet are not affected. Most patients having this disease are in poor general health, having nervousness, hyperidrosis and prickly heat on some part of the body. The condition lasts a few weeks, usually confined to the summer months and always has a favorable prognosis.

Psoriasis

Definition.—A disease of the skin characterized by an eruption of round, red patches, covered with thick silvery-white, adherent scales.

Adjustment.—Principally K. P. The important thing to accomplish is to restore elimination to normal.

Symptoms.—The primary lesion is a bright red, pinhead sized papule tipped with a white scale. This enlarges by peripheral extension into a patch. When the patch is about one-fourth of an inch in diameter its thick scales give it the appearance of a drop of mortar and is then often spoken of as psoriasis guttata. When coin sized is called psoriasis nummularis. A single patch may attain the size of a silver dollar and retain its round shape, but most large patches are irregular in shape, being formed by small ones uniting. The irregular shaped patches give to the skin a map-like appearance, from which they obtain the name psoriasis geographica. Upon maturing the center of the patch clears up, leaving a ring called psoriasis circinata. When the greater part of the body is affected it is called psoriasis universalis.

Every case does not exhibit all of these symptoms but in all cases an area of redness extends a little beyond the scales. The scales are constantly shed and renewed, they are readily scraped

off with the nails and leave a glistening membrane having red dot-like spots or points. The scales are silvery-white or gray in color, darker scales being due to a mixture of dirt or blood. The skin is always dry, never having a moist discharge. Psoriasis may occur upon any part of the body but is most frequently seen on the elbows, just below the knees and upon the scalp. When found on the scalp it is more apt to spread to other parts of the skin. A red scaly line on the forehead just below the hair line is very characteristic of psoriasis. Usually the hair does not fall out, but if alopecia does occur it is only temporary. In old cases the skin may be greatly thickened and fissured and the finger nails may be fissured transversely, discolored and cracked. Itching may be present at times but is of little importance in recognizing the disease. Most cases are better during the summer months and worse in cold weather. Most cases begin before the thirtieth year. The prognosis is favorable.

Scleroderma

Definition.—A chronic disease of the skin characterized by thickness and rigidity.

Adjustment.—K. P.

Symptoms.—This affection is most common in young or middle aged women and may begin anywhere but usually on the upper half of the body. It may begin with symmetrical patches or develop on all parts of the body at once. The principal feature of the disease is that the skin is hard and cannot be pinched into folds. This firmness is due to an infiltration of serum and cells in the subcutaneous tissue and to the fact that the skin is firmly attached to the deep underlying structures. The skin is of normal color, scaly and does not pit upon pressure. When occurring in patches their outline can be better felt than seen. The stiffness of the skin may interfere materially with movement of the joints. Late in the disease the face may become involved so that the eyelids cannot be closed and the facial expression remains unchanged. Respiration may be suppressed

from the inability of the chest to properly expand. The temperature of the skin may be lowered due to interference with the cutaneous circulation. Sensation in finally altered and the second stage supervenes. The second stage is called the atrophic stage, being characterized by a progressive atrophy causing the whole body to have a shrunken, corpse-like appearance. Although marasmus may be extreme the general health is not materially affected and the patient may live many years.

Sebaceous Cyst

Definition.—A small tumor of the skin due to the retention of sebum in the sebaceous gland. It is also called a wen.

Adjustment.—Local and K. P.

Symptoms.—Wens may occur anywhere on the cutaneous surface but are most common on the scalp, face, neck and back in the order named. They vary in size from millet seed to an orange but are usually slightly less than a small marble. They are round in shape and when small a part of their contents may be pressed out. The skin over them is pale due to pressure anemia of the overlying cutaneous capillaries. At first they are elastic or doughy to the touch but as the contents solidify they become hard and firm. They grow slowly without any subjective symptoms. When occurring on the scalp there is no hair upon the skin over the cyst.

A wen differs from a lipoma in that the latter is larger, firm from the beginning, lobulated, more flat in shape, more numerous and rarely found upon the scalp.

Seborrhea

Definition.—A secretory disorder of the sebaceous glands characterized by hypersecretion of sebum which may be too fluid or too solid, forming an oily coating or greasy crusts on the skin.

Adjustment.—K. P.

Symptoms.—The normal secretion of sebum is not visible to the naked eye but when secreted to excess and of fluid con-

sistency it gives the skin a greasy appearance and is called *seborrhea oleosa.* The extent of the secretion varies from enough to give the skin a slippery feeling to large drops or beads of oil. This oil catches dust, which mixes with it, giving the skin a dirty appearance, and is most noticeable on the skin of the nose, forehead, chest and shoulders. When the secretion is thick, forming crusts, it is called *seborrhea sicca* and is most commonly found on the scalp where it forms one of the varieties of dandruff. These crusts of oil collect around the roots of the hair and are of yellow color. The entire scalp may be involved but as a rule the crown and vertex are affected more pronouncedly than the rest of the scalp.

Sycosis

Definition.—An acute or chronic inflammation of the hair follicles of the face characterized by papules and pustules perforated with hairs and by much crusting.

Adjustment.—Middle cervical and K. P.

Symptoms.—This disease is also called folliculitis barbae and by some authors barber's itch. However, it should be borne in mind that this is not the true barber's itch.

The disease begins with a formation of numerous red papules, conical in shape, raised above the surface and always perforated by a hair and is preceded or accompanied by disagreeable sensations of prickling, burning, smarting or a feeling of tension in the skin. The papules vary from millet seed to pea in size and soon form pustules which preserve the same characteristics. The conical shaped pustules perforated by hairs are pathognomic of the disease. The pustules undergo no rapid change but in time the pus appears upon the surface in thin crusts which never become thick and is appreciable only when the beard is growing. In severe cases small cutaneous abscesses may form with enlargement of the neighboring lymphatics. The pus destroys the hair follicles and hairless spots on the bearded region of the face may result. It may involve the scalp, eyebrows and axilla, but shows no tendency to spread to non-hairy parts of the body. The disease may become chronic after many recurrent attacks.

Trichophytosis Corporis

Definition.—An incoordination of the skin and hair characterized by the formation of circular or annular scaly patches and partial loss of hair.

Adjustment.—K. P. and local.

Symptoms.—This is the simplest form of ringworm and begins as a small pale red slightly raised spot which spreads out into a round sharply defined scaly patch. The center of the patch clears up leaving a ring shaped border which may be vesicular or crusted from the drying of the vesicular contents. There may be but a single patch or they may be numerous and occur in groups. If two patches meet at their peripheries they coalesce and form gyrate figures. In some cases the center of the patch does not clear up and it then remains round, slightly raised and scaly. The exposed parts of the body are most common sites for the eruption but in rare cases ringworm may spread all over the body.

Eczema marginatum is a form of ringworm that is located in the groin or axilla. It is usually of a more highly inflammatory character than when found in other parts of the body. The edge of the patch is sharply defined, raised, scalloped, papular and scaly while the center may be smooth or but slightly crusted. The patch often becomes large, running down along the inner surface of the thigh over the lower part of the abdomen and backward over the perineum. Usually the inside of both thighs are affected. There is considerable itching. When occurring in the axilla the same symptoms will appear.

Trichophytosis Capitis

Definition.—This is called ringworm of the scalp and is found only in infants and children.

Adjustment.—K. P. and local.

Symptoms.—This form of ringworm is found only in children, it disappearing about puberty regardless of how severe it may have been previously. It begins as a single vesicle or as a small scaly patch. From this small beginning the spot spreads

to form a large circular patch which is red covered with gray scales, sharply defined, slightly elevated and partially bald. The patch contains many broken off hairs with split ends. The hair in and around the patch is dry and lusterless. The patch may vary from the size of a ten cent piece to a large area covering most of the scalp. When small patches coalesce to form large ones they lose their circular outline and become scalloped. When they become one inch in diameter stop growing and remain stationary.

The one or more patches are attended by itching, which is the first symptom to attract their attention. The most frequent locations are the vertex and parietal regions.

Trichophytosis Barbae

Definition.—It is also called ringworm of the beard and barber's itch.

Adjustment.—K. P. and local.

Symptoms.—At first it forms a scaly circular patch which increases in size, producing broken off hairs and a partially bald area. There are usually several of these areas on the chin, cheek and neck. This is followed by the development of pustules which are situated upon the patch and are pierced by hairs or a group of large nodular swellings from the size of a pea to that of a cherry may develop upon this circular patch. These nodules are red or purple in color, round in shape and prominently raised above the surface of the skin. They rarely suppurate, but may give off a sticky exudate or may remain hard and scaly. There is always some itching and burning attending these lesions. This differs from sycosis in that it affects the lower part of the face, sparing the upper lip, has broken off hair and grouped nodules, while sycosis is more acute, has no nodules and its pustules are discrete.

Urticaria

Definition.—An acute or chronic disease of the skin characterized by the formation of wheals. It is also called **nettle rash** and **hives.**

Adjustment.—K. P. in combination with S. P.

Pathology.—Urticaria is a vaso-motor disturbance which is at first characterized by a spasm of the vessels in a localized area and immediately followed by their dilatation. A serous exudation ensues, forming the wheal, which is pink at first but later becomes white. This vaso-motor disturbance is the result of a toxin in the blood which forms in the digestive tract when there is improper digestion and because of poor elimination is permitted to remain in the body coming in contact with the skin.

Symptoms.—Most cases of hives are acute in nature, beginning with wheals, which are firm, flat, circumscribed elevations of pink color. If they are greatly swollen may become white in the center, leaving a red border or areola. They are always discrete and may vary in size, but usually are about one inch in diameter. They are not symmetrical but usually develop on both sides of the body and as a rule are not limited to any particular part. Each wheal may last from a few minutes to a few days, always being of a temporary character. They itch, burn, tingle and new ones form as the older ones disappear, recurring throughout the duration of the disease. In rare cases the wheals appear only at night and disappear during the day. The patient often describes the lesions as resembling mosquito bites, which they do to a great extent. Wheals may be produced in a patient having the disease by drawing the nail across the skin or by giving it a sharp tap. The acute cases may begin with or without fever and always disappear without roughness, scaliness or desquamation of the skin. The duration is about one week.

Chronic urticaria differs from the acute only in duration, it lasting for months or years. As a rule the eruption is less extensive and if itching has been present excoriations and pigmented areas will be found, upon examination of the skin. The wheals may assume different appearances in different cases, some being small, some large, others surmounted with a papule and still others immensely edematous and the seat of hemorrhage. The prognosis is always favorable under Chiropractic adjustments.

Syphilis

Definition.—A chronic disease of slow progress, characterized by an initial lesion called the hard chancre and in the second and third stages by various cutaneous lesions.

Adjustment.—K. P. in combination with local if a local zone is involved.

Pathology.—See syphilis in section on febrile diseases.

Symptoms.—The primary stage is characterized by the appearance of the hard chancre, two to six weeks after inoculation. In ninety per cent of the cases it is located upon the genitals. It always has a hard indurated base with a well defined margin. Upon the hard base the initial lesion may take on the form of a scaly patch; a dry or moist papule; a superficial erosion or a circumscribed ulcer having perpendicular edges. Usually but one chancre appears in a single case but they may be multiple. They give off a serous secretion and disappear in two or three months, leaving a scar. During the initial stage the nearby lymphatics become painlessly enlarged, but remain freely movable and rarely suppurate. About six weeks after the appearance of the initial lesion the skin becomes the seat of eruptive lesions called syphilides. With their appearance there is headache, malaise, sore throat and pains in the joints. The eruption is divided into two groups known as secondary and tertiary syphilides.

Secondary syphilides.—The first secondary lesion to appear is called the macular syphilide or syphilitic roseola. It consists of circular hyperemic spots on the face, trunk and flexor surface of the extremities. They are of a faint rose red color, becoming purple when exposed to the cold and vary in size from that of a split pea to a dime. They disappear on pressure. Each macule lasts a week or ten days when it may entirely disappear, leave a pigmented spot or form a papule. New macules form from time to time and may be intermingled with papules and pustules, but the macules always predominate.

These macules differ from those of the eruptive fevers by the absence of fever, catarrhal and gastric symptoms, and by the slow changing of the muscles. They differ from chromo-

phytosis in that the macules are red, not brown, are not scaly and not capable of being removed by scraping. Most other skin diseases having macules can be differentiated from syphilis in that their macules are smaller, scaly and not so general in their distribution.

The **papular syphilide** usually follows the macular, but may be the first eruption to appear. The papules vary in size from that of a pea to one inch in diameter. They are round, red, firm and after forming undergo changes slowly. The center of the papule sinks, becomes scaly and then is gradually absorbed. They are very general in their distribution but are sometimes grouped. When the papules are very large they are called the lenticular papular syphilide and if small are called the miliary papular syphilide.

In these large **lenticular syphilides** the superficial layer of the epidermis is absent at their centers causing them to have a ragged edge near the base. This is an important diagnostic sign. They are bright red at first but later they become the color of raw ham. When occurring upon the face they often group along the hair line and form pustules that crust. They commonly appear in goodly numbers on the palms and soles. They last from one to two months, leaving marked spots which later disappear. If they become pustular they are called the **papulo-pustular syphilide,** and upon becoming scaly are called the **papulo-squamous syphilide.**

The **moist papule** or **mucous patch** is a modified form of the lenticular syphilide occurring upon mucous membranes or where two folds of the skin rub together. They are circular in shape, have a flattened surface, a depressed center and a dull red color at first, but are soon covered with a white coating. Their duration is long and they are considered to be one of the most highly contagious of all syphilitic lesions.

The **miliary papular syphilide** is not so common as the lenticular. They are conical in shape, pinhead in size with depressed centers and are grouped around the hair follicles. When arranged in patches they become scaly resembling psoriasis, but are not localized on the extensor surfaces of the extremities

and have no itching with but little scaling. Upon disappearing they leave pigmented spots and sometimes permanent pits.

The **postular syphilide** is the last eruption belonging to secondary syphilis and may occur early or late during this stage. This lesion usually follows the former ones but may occur primarily and always denotes a poor condition of the general health. These pustules may be attended with a slight fever of irregular course and indefinite duration. The pustules may be large or small in size and have a hard red base and an inflamed areola. The eruption may be general or localized, drying up in a few days after forming and become covered with a yellowish brown crust which soon falls, leaving a pigmented pit that in time disappears. The small pustules are called the **miliary pustular syphilide** or **syphilitic acne.** They are most common during the middle of the first year of the disease, being grouped on the trunk, face and extremities.

The pustular syphilide can be differentiated from the other pustular diseases because of having an infiltrated base being more general and always having one or more symptoms indicating syphilis.

Tertiary Syphilides.—The eruptions of this stage may occur as early as the second year or as late as the twentieth year but prior to their development there may be relapses of macules, papules or pustules. The tertiary lesions are tubercles or nodules, the squamous, the pustulo-crustaceous, gummatous and ulcerative.

The **tubercular** or **nodular syphilides** occur as clusters in the deep parts of the corium, are light red at first but darken with age. Each individual nodule varies from the size of a pea to that of a hazel nut. They are round, firm, smooth and somewhat elastic protuberances often arranged in circles or semicircles. There may be one or more groups of this character occurring upon the back, neck and face. They are few in number if they occur late in the disease. They disappear by absorption or by breaking down, forming a sharply cut ulcer with a perpendicular edge. If several of these lesions break down at once and coalesce they form a large ulcer having scalloped edges. These ulcers are

always covered with a thick greenish crust which softens and is easily removed when moistened. As a rule they progressively but slowly enlarge and have no subjective symptoms. Upon healing they leave a scar like that of a burn.

The **squamous syphilide** is usually not considered as an individual lesion but rather a scaliness of the other forms. They are usually papules or tubercles which are scaly and occur after the second year. They are most commonly found upon the palms and soles where they form circular or ring shaped figures. This is differentiated from squamous eczema of the palm by the fact that in syphilis there is little or no itching, often unilateral, more infiltration and the lesion is often crescenteric in shape with healthy skin between the horns of the crescent.

The **pustulo-crustaceous syphilide** is characterized by large deep seated pustules or ulcers which are covered by prominent and peculiar crusts. These lesions always occur late and are always localized on the scalp, face and extremities, but rarely affecting other parts. They assume three forms, viz., the ecthymatous, rupial and pemphigoid.

(a) The **ecthymatous** form begins as one or more round flat pustules one-fourth to one-half inch in diameter, sometimes becoming as large as a half dollar. Their base is hard and swollen and surrounded by an inflamed areola. The pus dries and forms a green or dark brown crust, the center of which is depressed. As the crust dries it becomes detached from the edge of the sore and is easily removed. Beneath the crust is a thick pus that soon dries forming another crust. If the sore is washed out upon removal of the crust the typical syphilitic ulcer with its punched edges is seen. This ulcer may heal and leave a scar like that of a burn but if it does not heal forms the ulcerative syphilide.

(b) The **rupial** form is also called rupia and is characterized by a conical laminated crust over a superficial ulcer. This may begin as a superficial pustule or bulla upon which a greenish crust develops and under which suppuration exists. The margin of the ulceration extends a little beyond the original crust. A new crust forms beneath the old one raising it up.

After this has been repeated a few times the crust becomes arranged in layers one-half inch in thickness and about two inches in diameter. If the lesions are numerous the ulcers are usually small and if few they are large. If the ulceration occurs more rapidly at one end of the sore than at the other it will be found that the crust is uneven in thickness.

(c) The pemphigoid or bullous form is very rare in acquired syphilis and common in the transmitted form. It consists of an eruption of superficial, purulent, flattened bullae one-fifth to one inch in diameter. They are surrounded by a dull red areola and soon become covered with dark green crusts which are closely different.

The gummatous syphilide is one of the most common and characteristic lesions of late syphilis. It consists of a deposit of gummy material in the subcutaneous tissue from which it extends into the skin. It may take on the form of a single tumor, a group of nodules or a diffuse infiltrated patch. It may undergo absorption and disappear or break down and ulcerate. A single gumma begins as a small pea sized structure beneath the skin and grows slowly, requiring several weeks or months to attain the size of a hazel nut. They are freely movable, firm, elastic, painless and roll under the skin. As it increases in size it becomes movable and the skin over it assumes a red color. It may feel soft upon palpation but will not discharge any amount of fluid when opened. The scalp and forehead are the favorite locations for the formation of gumma, where they may become as large as a hen's egg. If the gumma undergoes ulceration a deep round ulcer is formed. A gumma differs from malignant tumors and abscesses in that it is not attended by pain and will fluctuate under pressure as it increases in size. When involving the skull bones has crepitus and when opened gives off a small quantity of bloody serum.

The ulcerative syphilide always results from other lesions of the disease, usually tubercular, pustulo-crustaceous or gummatous and are divided into three classes, viz., superficial, serpiginous and deep or perforating.

(a) The superficial ulcer is circular in shape with sharply

cut edges, a dirty yellowish purulent base size of a quarter to half dollar and occurs on the face and legs. They may occur early in the disease and nearly always result from the pustulo-crustaceous syphilide.

(b) The serpiginous ulcer is so named because it tends to creep over the surface leaving a cicatrix as it passes along. It may develop from other ulcers, tubercles or pustules and creeps in a circular manner. The tissue in the center has a normal appearance, an important differential sign from other similar ulcers. It is most often seen on the back and the extremities, is not painful and does not necessarily impair the patient's health.

(c) Deep ulcers form from a breaking down of gummatous deposits and have a crater like cavity due to the opening being smaller than the softened mass. If they are numerous in one location they may coalesce beneath the skin involving the deep structures. Their course is indefinite as they may perforate or heal.

Zoster

Definition.—An acute inflammatory incoordination of the cutaneous nerves characterized by a unilateral eruption of groups of vesicles situated upon a reddened base and found along the course of the affected nerve. It is also called herpes zoster and shingles.

Adjustment.—Local with K. P.

Pathology.—The structural changes are those of simple inflammation involving the substance of a cutaneous nerve with its posterior ganglion and the papillary layer of the corium.

Symptoms.—The first stage is that of neuritis lasting for a few days or several weeks and marked by slight or severe pains. These premonitory pains are followed by the appearance of an eruption consisting of groups of small papules which soon develop into tense vesicles. These vesicles vary in size from a pinhead to a split pea or larger and always have a red base. The vesicles may become turbid, dry up and disappear and be followed by other groups of vesicles. Mild cases usually terminate in a week or ten days, while severe cases may last weeks or

months, during which the lesions are attended by severe burning and stinging pain. The most common location is one or two intercostal nerves from the spine to the sternum, but may affect nerves of the head and extremities. It is not uncommon to find this eruption following the course of the supra orbital branch of the trifacial nerve. The number of vesicles vary from two to hundreds in a group and they may coalesce forming blebs.

It differs from herpes simplex in that it is usually unilateral, its vesicles do not break to form crusts and it is always accompanied by pain of a neuralgic character radiating along the course of the affected nerve. The prognosis is always favorable under adjustments.

Varicose Veins

Definition.—A localized or circumscribed dilatation of the superficial veins.

Adjustment.—Local with K. P. Most varicosities are found in the lower extremities, hence the local adjustment is a lower lumbar.

Pathology.—From a causative standpoint these dilatations may result from venous obstruction due to pelvic, abdominal or thoracic tumors which press upon the vessels draining the affected part or the inferior vena cava; or it may be produced from diminished cardiac power associated with involution of the vein wall. In all cases the vein wall is stretched, causing it to assume a scaular or pouch-like formation.

Symptoms.—Varicose veins are common in both sexes, but are more common in fleshy people and those following occupations where they are required to stand for long periods at a time. The appearance of the varicosity is gradual with aching pains in the legs. The veins are darker in color than the blood they contain, due to intensification of the color in transmission through the skin. One or both legs may be affected and the dilatations which vary in number may extend from the hip to the ankle. Most commonly they are found on the calf of the leg and the inner surface of the lower portion of the thigh. They vary in size from slight distentions to enormous varices one to two inches in diameter.

If the relaxation of the vessel walls be very great there may be hemorrhages, both external and beneath the skin. Those occurring beneath the skin cause it to have a purplish-black color, and after repeated subcutaneous hemorrhages the overlying skin remains permanently pigmented. The broken skin at the point of hemorrhage often becomes the site of varicose ulcers.

Varicose ulcers are most commonly located on the anterior surface of the lower half of the leg and may be superficial or deep. They are irregular in shape with sloping or undermined edges and are surrounded by a wide zone of redness and infiltration. Their bases are covered with flabby granulations, a scanty secretion or a purulent exudate. They may be single or multiple on one or both legs. The foot and leg are greatly swollen from the edema. This edema is greater after standing, and is lessened by keeping the body in a horizontal position. The ulcers are tender and the patient complains of considerable pain. Upon healing they leave large scars. The prognosis is good under adjustments at K. P. and lower lumbar, sacrum or ilium.

SECTION XIV.

HERNIA AND HEMORRHOIDS

Hernia

Definition.—A swelling formed by the displacement of a soft part, which protrudes thru a natural or artificial opening from the cavity in which it is normally contained. Derived from Latin meaning a rupture, a burst or a descent.

Classification.—1. Femoral hernia.
(a) Complete.
(b) Incomplete.
2. Inguinal hernia.
(a) Direct.
(b) Complete oblique or scrotal.
3. Umbilical hernia.

Any of the above may become strangulated. Any of the three cavities of the body may be the subject of hernia, but those of the cranium and thorax are extremely rare and usually the result of traumatism, hence are not considered here. Many parts of the abdominal wall may become the seat of hernias, but they most commonly appear in the front, lower regions, which, being destitute in great measure of muscular fibres, and being the site of many of the openings leading from the abdomen to the lower extremities, offer less resistance to the displacement of the viscera.

Pathology or Deranged Anatomy

Femoral hernia. A portion of the intestine passes through the femoral or crural ring, the upper opening of the femoral canal. A pouch of the peritoneum is forced before the intestine and is called the hernial sac. If the viscus does not pass

through the saphenous opening it is called an **incomplete** femoral hernia and when protruding through the saphenous opening is called a **complete** femoral hernia. The coverings of a femoral hernia are: peritoneum, subserous areolar tissue, septum, crurale, crural sheath, superficial fascia and skin.

Inguinal hernia. A portion of the intestine passes through the internal abdominal ring, the conjoined tendon or aponeurosis of the internal oblique or transversalis muscles, into the inguinal canal and protrudes through the external abdominal ring. If the viscus escapes through the external abdominal ring into the scrotum it is called a **complete oblique** inguinal hernia or **scrotal** hernia. A **direct** inguinal hernia is one in which the protrusion makes its way thru some part of the abdominal wall internal to the epigastric artery. In most cases being forced thru the conjoined tendon, or the tendon is forced along before the viscus, forming one of its coverings. If the hernia, with its sac, can be replaced it is said to be reducible and as a rule is not very troublesome unless it attains great size. A hernia is said to be **strangulated** when it is not only irreducible but also subjected to a continual constriction; this constriction may be produced by different causes but usually occurs at the internal abdominal ring where a few fibres of the internal oblique or transversalis muscles contract pinching the protruding viscus. The coverings of an inguinal hernia are peritoneum, subserous areolar tissue, cremaster muscle and fascia, intercolumnar fascia, superficial fascia and skin.

Umbilical hernia. Some of the abdominal viscera protrudes thru the umbilicus by stretching the remains of the umbilical cord, and passes between the two recti muscles. The size and extent of the contents are variable.

Adjustment.—Femoral hernia—lower lumbar. Inguinal hernia—usually middle lumbar but may be any lumbar vertebræ. Rarely as high as the 12th dorsal vertebræ. Umbilical hernia—lower dorsal or upper lumbar.

Symptoms.—Inguinal hernia is by far the most common form and predominates in the male sex. Any circumstance which diminishes the resistance of the abdominal walls or breaks

the equilibrium existing between them and the viscera, which react and mutually press upon each other, would have an etiological bearing on hernia. The simultaneous contraction of the diaphragm and the abdominal muscles, which takes place on every violent effort is one of the chief of these causes. When a hernia is produced suddenly by traumatism it is attended by great pain in the region of the protrusion. Inspection will show a visible and palpable swelling external to the external abdominal ring. The swelling is very hard and oblong in shape, the long axis usually being parallel with Poupart's ligament. Within a few days or weeks all pain subsides except when straining, which most patients with hernia will aim to avoid. Inguinal hernia may be unilateral or bilateral and is often said to be single or double according to the number. Most cases of inguinal hernia are reducible by taxis and when reducible and having no matted adhesions which would tend to hold the displaced viscus in the canal, the prognosis is favorable under Chiropractic adjustments. Many cases of long standing respond slowly or fail to respond due to these adhesions and atrophy of the structures normally holding the viscus in place because of its prolonged non-use.

When inguinal hernia becomes strangulated it is always attended by great pain, localized in the region of the hernia, nausea, persistent vomiting, which may be of a fecal character and later development of the signs of gangrene which is due to obstruction of the vessels in the compressed viscus.

In femoral hernia the protrusion is below Poupart's ligament in the upper and inner part of the thigh. They are usually small in size and difficult to palpate because of being abundantly supported by the fascia and muscles of the thigh. A femoral hernia is hard under palpation and most of them are of the incomplete type. This form of hernia is most commonly found in the female sex.

An umbilical hernia can always be detected by inspection and further verified by palpation. Most umbilical hernias are small and contain but a small loop of the intestine. Rare cases have been known, however, in which the hernia contained the liver, stomach and the bulk of the small intestines.

If patients have been wearing a truss or other support prior to taking adjustments it is wise that they continue to do so, until the weak parts become so strengthened, by the adjustments, that protrusion of the viscus is prevented. Hernia is but a motor neurosis due to local vertebral subluxations pressing on the motor nerve fibres leading to some part of the abdominal muscles causing them to weaken and relax, permitting the viscus to protrude thru the dilated opening or thru the separated fibres constituting a hernia. Chiropractic adjustments release the pressure upon the motor nerve fibres thus restoring the transmission and permitting the normal expression of the motor impulses in the affected muscles.

Hemorrhoids or Piles

Definition.—Hemorrhoids are tumors chiefly composed of dilated blood vessels, hypertrophied connective tissue or blood clots situated beneath the mucous membrane of the anus or rectum.

Adjustment.—The primary cause of hemorrhoids is a lower lumbar subluxation, but many cases may be shown in which the hemorrhoid was produced suddenly during severe muscular strain such as heavy lifting, etc. Costiveness, constipation, over eating, prolonged standing, etc., when the tissue of the rectum is weakened by the local subluxation, tends to bring about the development of hemorhoids and is often assigned as being the secondary or exciting cause.

Pathology.—EXTERNAL HEMORRHOIDS are those occurring below the margin of the anus and are classified as thrombotic, varicose, inflammatory and connective tissue. **Thrombotic hemorrhoids** of the external variety are usually produced by thrombosis of the inferior hemorrhoidal veins or rupture of the vessel and clotting of the effused blood in the adjacent tissue.

Varicose external hemorrhoids are produced by a varicosity or localized dilatation of the subcutaneous veins around the anus and are very apt to occur during heavy lifting or straining.

Inflammatory external hemorrhoids result from an in-

flammation of the folds of the anus causing them to become swollen and edematous. They are pear-shaped and the small end often extends within the external sphincter.

Connective tissue hemorrhoids are also called fleshy piles and consist of hypertrophied muco-cutaneous tissue about the margin of the anus. Sometimes this connective tissue contains much fat.

INTERNAL HEMORRHOIDS are those occurring above the margin of the anus and are classified as thrombotic, varicose, capillary and mixed.

Thrombotic and varicose internal hemorrhoids differ from the external varieties only in the position in which they are found in the rectum. Those of the internal variety are found higher up in the rectum and affect the superior hemorrhoidal veins. The varicose internal hemorrhoid is the most common of all forms. *Capillary* hemorrhoids are small raspberry-like developments of the arterial capillaries of the rectal mucosa, resulting from dilatation of their walls. The term **mixed** hemorrhoid is used to describe a condition where external and internal hemorrhoids exist at the same time, and structurally may be any of the above described types.

Symptoms.—**Thrombotic external piles** begin suddenly while under some severe muscular strain when the patient feels a slight pain in the region of the anus. Examination will show a small round swelling, which is blue in color, due to the obstructed vessel containing deoxygenated blood. Pain and tension are increased for the first few hours. The patient is unable to sit and movements of the bowels are most distressing. Within 24 hours the pain is less acute but sensations of weight and aching continue being more severe with each movement of the bowels.

Varicose external piles consists of one or more circumscribed dilatations of the vessels around the anus. They increase in size at each movement of the bowels when there is any straining and are common in people who are constipated or follow occupations demanding much muscular strain. They may be made to disappear temporarily by elevating the hips, as this position aids gravity in draining the veins. They begin slowly without

pain or protrusion and when small most patients are unaware of their existence. The pile is of a dark bluish color and forms a cushion like mass around the anus. When becoming large they protrude and have a great tendency to bleed. This form of hemorrhoids yields very readily to adjustments of the lower lumbar vertebræ.

Inflammatory external hemorrhoids may be single or multiple and begin with itching, burning and a sense of uneasiness. Examination shows an oval swelling about the size of a hazel nut to that of a small egg. They are deep red in color, painful to the touch, not very hard and are often covered by mucous membrane which has been dragged down from its normal position in the rectum. When much inflammation exists there may be a spasm of the external sphincter which makes the sitting position most impossible. Defecation is dreaded and most painful, therefore most cases are constipated due to the voluntary retention. Between two of the piles may be found a small fissure or ulcer or a pocket filled with faeces. The inflamed structures may ulcerate and slough, leaving a scar, shrink and disappear with the inflammation or become chronic and form connective tissue piles. Lying upon the side with the hips elevated is the most comfortable position. Usually some relief can be obtained by a very few adjustments and most all cases recover in time.

Connective tissue piles are not painful, do not bleed and have no peculiar outline or color. They may be single or multiple, thick or thin and pedunculated or flat at their bases. As a rule they protrude to a marked degree and may become inflamed by the irritation of prolonged sitting upon a hard surface, passing hard, dry stools, etc. If they become inflamed they are then painful. These cases are slow to respond under adjustments.

Thrombotic and varicose internal hemorrhoids differ from the external variety only in the position in which they are found in the rectum. Those of the internal variety are found higher in the rectum and affect the superior hemorrhoidal veins.

Varicose internal piles are the most common of all varieties and are first indicated by two cardinal symptoms, bleeding and protrusion. When the pile is not inflamed there is little or

no pain present, but the amount of hemorrhage may be very great. The bleeding in internal piles usually occurs after the passage of the faecal mass. It is of a dark red color but may brighten after being exposed to the air. Blood coming from higher upon the intestine is of a tarry black color, is mixed with the faeces and will turn pink when placed in water. Protrusion does not occur until the hemorrhoids have attained considerable size and then takes place gradually. At first they come down but a short distance and appear to the patient as an incompleted stool. During the early stages they recede readily but as they become larger and extend farther down it is difficult to replace them, as the sphincter in contracting obstructs the flow of blood, causing them to swell extensively. When pressed upon by a contracted sphincter the pain may be very severe. There is always more or less mucus passed from the rectum and when abudant is sometimes called white hemorrhoids. It forms as an exudate from the inflamed mucous membrane.

Capillary hemorrhoids are small raspberry-like developments of the arterial capillaries close to the surface of the mucous membrane of the rectum. They are covered with a very thin layer of epithelium which is easily ruptured, causing frequent hemorrhages. They do not protrude and are very difficult to locate upon digital examination. They very closely resemble the capillary nevus and for that reason are sometimes called nevoid hemorrhoids. They are also often called **blind bleeding piles.** When they have existed for some time the dilitation becomes so great that it involves the veins and the adjacent connective tissue so that a varicose venous hemorrhoid is the final result. **Mixed hemorrhoids** is the name applied to those cases in which both the superior and inferior hemorrhoidal veins are involved in the varicosity with symptoms of each variety resulting. The division between them is always clearly marked by the so-called white line of Hilton. This line marks the attachment of the external sphincter to the lower end of the gut. The existence of this line with piles above and below it constitutes the condition known as mixed piles.

Prolapse of the Rectum

Definition.—A partial or complete protrusion of the rectum or its mucous membrane thru the anus; thus the term may signify any form or degree of descent of the rectum.

Adjustment.—Lower lumbar.

Pathology.—This consists of an exaggeration of the normal physiological eversion which occurs at every defication. The elastic tissue which draws the mucous membrane back becomes stretched and permanently elongated, failing to draw the mucous membrane upward and also allowing the rectal wall to prolapse.

Symptoms.—This condition begins very gradually without pain, itching or discharge of any kind. After gradually increasing for a time discomfort is produced and hemorrhoids develop. The extent of the protrusion varies from one half to two inches. At first the membrane is normal in color but if it becomes inflamed is red or purplish. Upon the development of inflammation there is pain, bleeding and often ulceration. The prognosis is very favorable under adjustments.

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